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Vol. VI SEPTEMBER 1951 *No. 3*

Distributional Effects of the Federal Debt . . . *Jacob Cohen*

Investment Development Companies
Carl A. Dauten and Merle T. Welshans

Bank Reserve Requirements in Australia . . . *Robert B. Rivel*

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Edward C. Simmons

An Additional Note on Co-ordination of Banking and Monetary Agencies . . . . . *Clark Warburton*

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DISTRIBUTIONAL EFFECTS OF THE FEDERAL DEBT

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IN THE LITERATURE on public finance there is much discussion of the effect exerted by the public debt (primarily the federal debt) on the distribution of income between income classes. In many instances the distributional effect is stated to be in favor of the upper-income groups.[1] Some tentative dissenting opinions have also been expressed.[2] Rarely, however, is any substantive evidence offered for conclusions reached. On the basis of estimates contained in the Federal Reserve liquid asset surveys, it is possible to test this question empirically. If it is assumed that the federal debt is distributed among income classes in the same way that all liquid assets are distributed (for which data are given), a basis is established for estimating receipts by income classes. The use of Treasury tax data makes possible estimation of tax payments for servicing the debt. It is then a matter of subtraction to estimate net transfers between income classes. The following discussion will attempt to justify the assumption of a similar distribution of debt as for liquid assets and to indicate the empirical results. In contrast to what would seem to be the predominant point of view, the resultant estimates suggest a distributional effect in favor of the lower-income groups.

The assumption that government bonds are distributed among income classes in the same way that all liquid assets are distributed really involves two assumptions. First, that direct holdings of gov-

1. See, for example, Hedwig Reinhardt, "On the Incidence of the Public Debt," *Social Research*, XII (May, 1945), 218–21; Edward D. Allen and O. H. Brownlee, *Economics of Public Finance* (New York: Prentice-Hall, Inc., 1947), p. 173; Philip E. Taylor, *The Economics of Public Finance* (New York: The Macmillan Co., 1948), p. 233.

2. See, for example, Seymour E. Harris, *National Debt and the New Economics* (New York: McGraw-Hill Book Co., Inc., 1947), p. 157; Henry C. Wallich, "The Changing Significance of the Interest Rate," *American Economic Review*, XXXVI (December, 1946), 773.

ernment bonds by spending units are distributed in the same proportions as are all major liquid assets. Second, that the distribution of equities in institutions owning government bonds is similar to the distribution of major liquid assets. Most of the available evidence relates to the first assumption. The liquid asset surveys discuss the *proportions* of spending units in each income class owning government bonds, savings accounts, and checking accounts.[3] The following statement is made.

> Data presented . . . confirms the findings of two previous surveys that the distribution of Government bonds and savings accounts among different income groups is similar to the distribution of total holdings of liquid assets. In each case the proportion of holders increases quite steadily from lower to higher income groups.[4]

If not for the final qualifying sentence, this would be all the evidence needed. The last sentence, however, makes the evidence less certain. Proportions of spending units in each income class owning bonds may not be indicative of percentage holdings of government bonds in each income class. It is necessary then, to develop additional evidence.

There is substantial evidence that savings bonds of the discount type were distributed in the same way as were all major liquid assets. According to correspondence with the Survey Research Center,

> The references [in the Federal Reserve Bulletins] to the similarity in the distribution of Government Bonds and total liquid assets refer exclusively to the distribution of savings bonds of the discount type (primarily E-Bonds) and not to the distribution of G-Bonds or other [sic] marketable government securities. With respect to E-Bonds, we know from numerous unpublished tabulations that their distribution (Lorenz curve) closely resembles the distribution of total liquid assets (excluding currency). . . .[5]

Series E holdings are of great importance in the total. At the end of 1946 (for which year distributional effects are being estimated), they aggregated approximately $36 billions of the $64.9 billions of individually held debt. That a similar distribution could be posited for the remainder of the individually held debt seems indicated by a table giving "Type and Size of Liquid Asset Holdings within Various Income Groups."[6]

3. Savings accounts include savings accounts in commercial and mutual savings banks, shares in savings and loan associations and postal savings.

4. *Federal Reserve Bulletin* (July, 1948), p. 769; a similar statement will be found in the issue of August, 1949, p. 902.

5. Letter to the writer from George Katona, Program Director, Survey Research Center, University of Michigan, December 2, 1949.

6. *Federal Reserve Bulletin* (August, 1949), Table 11, p. 908.

In the low-income brackets this table shows a slightly larger percentage of spending units having savings accounts of $500 to $1,999 and $2,000 and over than the percentages owning United States savings bonds (Series A-F). The percentages of spending units owning checking accounts of various sizes, however, are considerably below corresponding percentages for both savings bonds and savings accounts. Since, for example, the under $1,000 group owned 5 per cent of all major liquid assets early in 1947 and it is highly probable that considerably less than this percentage of all checking accounts was owned, either savings accounts or government bonds or both accounted for more than 5 per cent of total liquid asset holdings.[7] If savings accounts are the compensating factor, they would tend to swell the proportion of debt held indirectly by the low-income groups.

In an analysis of Wisconsin income, 1936, indirect evidence is supplied for believing a relatively large proportion of government bonds to be lodged in the hands of low-income groups.

> These figures indicate that rent and interest are the chief sources of property income to low-income groups; dividends and capital gains, to high-income groups. Combined with the important stake the lowest income groups have in property income in general, they strongly suggest that the tentative conclusion with which we started—that a rise in the share of rent in national income would transfer income from relatively low to relatively high income groups—is by no means obvious. Indeed, they give at least as much support to exactly the opposite conclusion, though they are by no means sufficient to demonstrate its validity.[8]

What is said in the foregoing quotation about rent presumably applies *pro tanto* to interest receipts.

The second assumption involved in our analysis of distributional effects is predicated on the widespread ownership of claims on insurance companies, mutual savings banks, and loan associations.[9] The significance of savings accounts for low-income groups would indicate the wide distribution of ownership in the latter two institutions. Related evidence as to average size of deposit and savings habits of different income groups would suggest that for the most

7. The total of liquid asset holdings include other government bonds besides savings bonds. It is possible then, for checking accounts to be compensated for not only by the savings bond and savings account categories, but by other government bonds.

8. Milton Friedman, "Foreword," *Analysis of Wisconsin Income*, by Frank A. Hanna, Joseph A. Pechman, and Sidney M. Lerner (New York: National Bureau of Economic Research, 1948), p. 14.

9. Of the $134 billions of indirectly held debt at the end of 1946, $25.3 and $11.8 billions were owned by insurance companies and mutual savings banks respectively. Holdings of savings and loan associations are included in holdings of "other corporations" in debt ownership statistics and thus cannot be separated out. While it is likely that equities in commercial banks (who held $74.5 billions) and in non-financial corporations are highly concentrated, it is assumed that widespread ownership of claims on other financial institutions compensates for this concentration.

part formal savings institutions are patronized by low- or medium-sized income groups.[10] As for insurance, while again as for other assets, there is concentration, the widespread ownership of policies would indicate that low-income brackets have at least the same share as their share of major liquid assets.[11] The significance of industrial and group life policies, held to a considerable extent by low-income groups, would lend support to the assumption.[12]

The evidence presented for either assumption about debt ownership is, of course, not conclusive. It appears strong enough, however, to give them the status of working hypotheses until data to the contrary are presented.[13]

Table 1 contains the results of estimation for the calendar year 1946, the latest year for which data were available at time of writing. The first half of the table relates to the directly held debt alone; the second half relates to the combined direct and indirectly held debt.[14] The first column of the table lists the income classes over which receipts and payments are distributed.[15] In securing column

10. See *Final Report of the Executive Secretary*, Temporary National Economic Committee, 77th Cong., 1st Sess. (Washington: Government Printing Office, 1941), pp. 183–84; Weldon Welfling, *Savings Banks in New York State* (Durham: Duke University Press, 1939), pp. 4–5.

11. The percentages of spending units in the three lowest income classes owning life insurance were 45, 67, and 84 respectively (*Federal Reserve Bulletin* [July, 1948], Table 11, p. 775).

12. Industrial and group life insurance at the end of 1946 amounted to $30.2 and $28.2 billions respectively, or 33 per cent of $174.6 billions of life insurance outstanding at the end of 1946 (*Life Insurance Fact Book* [New York: Institute of Life Insurance, 1948], p. 13).

13. It can be argued that in aggregate the evidence suggests that an even larger proportion of "governments" is held by low-income classes than is indicated by major liquid assets. Rather significant conclusions can, however, be demonstrated by making the less demanding assumption of similar distribution.

14. Interest receipts on indirectly held debt are "gross" receipts, not allowing for administrative costs associated with such receipts. Such costs, however, can be assumed to benefit equity-holders in proportion to their equities. Furthermore, no allowance has been made for the fact that equity-holders (using the term broadly to include all those having claims on assets of the corporation) have different contractual and residual claims on these assets.

15. The liquid asset surveys define income classes as consisting of "spending units." Treasury data on tax payments define "adjusted gross income classes" in terms of individual tax returns. This should make for some slight underestimate of net transfers in favor of low-income groups. For debt holdings are distributed in terms of the spending unit concept at the same time that tax payments are allocated to income brackets lower than is proper on the bases of spending unit concept. This is the case where separate returns are filed by members of the same spending unit. Apart from the question of defining the income-receiving unit, there may be discrepancies between "adjusted gross income" and "annual money income" of the liquid asset surveys. The possibility that adjusted gross income underestimates money income in low income classes thus underestimating indirect tax burdens is not substantiated in practice. Comparison with the liquid asset survey data on money incomes indicates that the below $1,000 money income group is estimated to have received 3 per cent of total income received

TABLE 1

DISTRIBUTIONAL EFFECTS OF THE PUBLIC DEBT FOR THE CALENDAR YEAR 1946

(1)	(2)	(3)	(4) (2)×(3)	(5)	(6)	(7) (4)−(5)	(8) (4)−(6)	(9)	(10)	(11) (9)×(10)	(12)	(13)	(14) (11)−(12)	(15) (11)−(13)
	Directly Owned Debt							Direct and Indirectly Owned Debt						
		As-sumed rate of in-terest	Estimated Interest Receipts	Tax Payments		Net Receipts or Disbursements (−)			As-sumed rate of in-terest	Estimated Interest Receipts	Tax Payments		Net Receipts of Disbursements (−)	
Income Class	Amount (bil-lions)	(%)	(000)	Basis (1) (000)	Basis (2) (000)	Basis (1) (000)	Basis (2) (000)	Amount (bil-lions)	(%)	(000)	Basis (1) (000)	Basis (2) (000)	Basis (1) (000)	Basis (2) (000)
Under 1,000....	$ 3.2	2.67	$ 85,440	$ 43,941	$ 57,276	$ 41,499	$ 28,164	$ 9.9	2.20	$ 217,800	$ 111,076	$ 144,785	$106,724	$ 73,015
1,000–1,999....	7.1	2.67	189,570	168,323	206,273	21,247	− 16,703	21.8	2.20	479,600	425,497	521,429	54,103	− 41,829
2,000–2,999....	11.0	2.67	293,700	250,345	298,338	43,355	− 4,638	33.8	2.20	743,600	632,838	754,156	110,762	− 10,556
3,000–3,999....	10.4	2.67	277,680	200,605	231,011	77,075	46,669	31.8	2.20	699,600	507,100	583,964	192,500	115,636
4,000–4,999....	7.8	2.67	208,260	122,713	132,217	85,548	76,043	23.9	2.20	525,800	310,198	334,226	215,602	191,574
5,000 and over..	25.3	2.67	675,510	944,234	805,045	−268,724	−129,535	77.6	2.20	1,707,200	2,386,891	2,035,040	−679,691	−327,840
Total.....	64.9	2.67	1,730,160	1,730,160	1,730,160	0	0	198.9	2.20	4,373,600	4,373,600	4,373,600	0	0

Sources:
Distribution of liquid assets: *Federal Reserve Bulletin* (July, 1947), Table 14, p. 801.
Composition of debt by types of ownership: *Treasury Bulletin* (March, 1947), pp. 51 ff.
Interest rates on debt issues: *Ibid.*
Tax data: U.S. Treasury Department, *Statistics of Income for 1946*, Preliminary Report (Washington: Government Printing Office, 1949), Part I, pp. 14–17; Part II, p. 1; *Treasury Bulletin* (April, 1947), p. 73.

(2), estimated individual debt holdings of $64.9 billions as of the end of December, 1946, were distributed over income classes in accordance with the distribution of holdings of major liquid assets as of the early part of 1947.[16] The assumed rate of interest in column (3) represents the weighted average of interest rates on the specific debt issues held by individuals.[17] In arriving at the distribution of tax payments on the first basis as shown in column (5), separate treatment was given miscellaneous internal revenue and customs duties; individual income taxes; corporate income taxes; death taxes.[18] The distribution of tax payments on basis (2) differed by the use of a "compromise" incidence theory for corporate income and excess profits taxes. Half of corporate taxes were apportioned over income

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in 1946; adjusted gross income of this income class is placed at 4.4 per cent in Treasury data. For the $1,000 to $1,999 income groups the respective estimates are 12 and 17.7 per cent. Since they have a conservative effect, estimates of adjusted gross income have been employed in arriving at consumption expenditures of each income class.

16. Because of rounding, the figures in column (2) do not add up to the total. The distribution of major liquid assets was as follows:

Income Class	Liquid Assets Held (Per Cent)
Below $1,000	5
1,000–1,999	11
2,000–2,999	17
3,000–3,999	16
4,000–4,999	12
5,000 and over	39
Total	100

To secure column (9), aggregate holdings of individuals, commercial banks, insurance companies, mutual savings banks, and other corporations and associations were distributed over income classes in a similar way to the distribution of individual holdings.

17. Failure to allow for concentration of higher-yielding savings bonds in lower income brackets probably results in underestimating the average for lower-income brackets, overstating it for the upper brackets.

Column (10) was calculated in the same way except for weighting by institutional holdings as well as individual holdings.

18. Miscellaneous internal revenue and customs duties for the calendar year 1946 were allocated among income classes according to consumption expenditures of the various income classes. Such expenditures were computed by multiplying adjusted gross income by the average propensity to consume of the various income classes. The latter ratios were arrived at on the basis of a sample income and expenditure study for cities, 1944 (*Statistical Abstract*, 1948, p. 282). Individual income payments were distributed over income classes in accordance with Treasury data on tax payments by adjusted gross income classes. Corporate income and excess profits taxes were distributed over income classes in accordance with dividend receipts by adjusted income classes. Death taxes were assumed to be paid by the $5,000 and over class. (For the latter assumption, cf. Helen Tarasov, *Who Pays the Taxes?* Temporary National Economic Committee, Monograph No. 3 [Washington: Government Printing Office, 1941], p. 17). Once tax payments were allocated by income classes a percentage of such payments indicated by the ratio of total estimated interest receipts to total tax payments was calculated to give the contribution of each income class to debt service.

Column (12) was calculated in the same way except that a higher percentage of tax payments was allocated to income classes to indicate contribution to debt service.

classes according to dividend receipts, half according to estimated consumption expenditures.

The table shows a distributional effect in favor of the below $5,000 income classes. Whether or not every income class below $5,000 benefits depends on the incidence assumption for corporate income and excess profits taxes. Assuming them to be on income classes in proportion to dividends received—conventional incidence theory—all of the below $5,000 classes benefit. The regressive effect of miscellaneous internal revenue is so dominated by the progressiveness and magnitude of income tax collections as to result in a net disbursement by the foregoing $5,000 class. Modifying the incidence assumption to allow half of the incidence of corporate taxes to fall on consumers, the net transfer is in favor of the under $1,000 class and the $3,000 to $3,999 and $4,000 to $4,999 classes. Under either incidence assumption, it should be noted, the below $1,000 class enjoys a net receipt. As a result of income classes both receiving interest and contributing to debt service, net transfers between income classes are considerably less than the estimated debt charge. The total estimated debt charge on direct and indirectly held debt amounts to $4,374 million. The net transfers amount to either $380 or $680 million, depending again on the incidence assumption for corporate income and excess profits taxes.[19]

Excluded from indirect holdings in this analysis because of their unique ownership features have been the substantial holdings of Federal Reserve Banks, United States government agencies and trust funds, and state and local governments.[20] Considering the relative size of these indirect holdings, it is possible that an even greater distributional effect in favor of lower income classes is exerted than in the case of the remainder of the debt.

Beginning with the Federal Reserve Banks, for the most part no distributional effect is exerted. In 1946 the largest part of net earnings was transferred to surplus, thus increasing the equity of the government in the Banks.[21] The lack of a distributional effect is more clear-

19. In discussing the distributional effects attributable to the public debt, the analysis has implicitly assumed the volume of federal taxation and expenditures would have been lower by the amount of debt service in the absence of the public debt. This assumption seems to be a reasonable one. If, on the other hand, the same volume of taxes were raised by the same tax structure, and expenditures were made to benefit income classes in proportion to the distribution of major liquid assets, it could not be argued that the public debt exercised a unique distributional effect.

20. Holdings at the end of 1946 were $23.3, $30.9 and $6.3 billion, respectively, for an aggregate of $60.5 billion.

21. *Annual Report of the Board of Governors of the Federal Reserve System, 1946*, pp. 54–55.

ly evidenced by the procedure introduced in 1947. In that year the Board of Governors started to levy an interest charge on Federal Reserve Notes not collateraled by gold certificates, sufficient to yield the Treasury approximately 90 per cent of net earnings of Federal Reserve Banks after statutory dividends.[22]

Separate attention would properly have to be given to each of the government agencies and trust funds to determine the distributional effect of their holdings. Concentration on the major funds—the Unemployment Trust Fund and the Federal Old-Age and Survivors Insurance Fund—indicates a transfer in favor of the lower-income groups. For these funds can be taken to be "owned" by the lower-income groups.[23] The taxes to pay the interest on trust fund holdings, on the other hand, will be raised predominantly from the upper-income classes. This leaves out of consideration the complexities introduced by the initial financing of bond holdings, and secondly, by the difference between the federal "administrative" and "cash" budget. First, if employers bear at least part of their share of employment taxes, the initial equity of covered employees will have increased beyond their own tax payments. There is thus a distributional effect on capital account. Second, the fact that fund receipts may for considerable periods of time exceed disbursements, and that Treasury interest payments to trust accounts may be nominal rather than real, has the effect of postponing the "real" distributional effect.[24]

State and local holdings belong to the "people." Assuming that the benefits of federal interest receipts are evenly distributed over the population, the progressiveness of the federal tax structure again implies a distributional effect in favor of the lower-income groups.[25]

It is likely that until the World War II period the federal debt did

22. Federal Reserve Bank of New York, *Monthly Review* (May, 1947), p. 43; *Annual Report of the Board of Governors, etc., 1947*, p. 49.

23. The average wage (including non-taxable wages) in industries covered by Old-Age and Survivors Insurance was considerably below the maximum taxable income of $3,000, in 1946 (*Social Security Bulletin* [November, 1948], Table 8, p. 20).

24. The current distributional effect may, in a sense, be in favor of upper-income groups since employment taxes paid by employees may conceivably lower the tax load placed in former groups. If a future excess of disbursements is financed by refunding trust holdings, it may still be difficult to speak of a distributional effect in favor of covered employees since the person or institution purchasing the bond thus acquires an asset. Nevertheless, a "real" transfer between beneficiaries of trust funds and the general public will take place at such a time.

25. This analysis implies that certain state and local services would not be performed in the absence of interest earnings on the federal debt, or, alternatively, that a reduction in the regressiveness of state and local tax systems would similarly not take place in the absence of such receipts. It is perhaps just as realistic an assumption, however, that the same level of services would have been financed out of a regressive system of state and local taxation. In such a case, the distributional effects in favor of lower-income classes are accentuated by abandoning our implicit assumptions.

exert a distributional effect in favor of upper-income classes.[26] The evidence presented here for the year 1946 would suggest that a wider distribution of the debt in World War II and an unprecedentedly steep progressive income tax structure combined to reverse the traditional direction of net interest flows. Whether this conclusion is valid for postwar years may be open to some question. Since 1946 there has been an increased concentration of liquid assets in the $5,000 and over income classes.[27] At the same time, however, percentage reductions in the federal tax burden and tax savings were greater for the below $5,000 income brackets.[28,29]

26. During the nineteenth century consumption taxes were the primary source of federal revenue. During this same time, debt ownership was highly concentrated. H. C. Adams' study of 1880 census data revealed the public debt to be held by a small number of individuals and corporations (Adams, *Public Debts* [New York: D. Appleton and Co., 1893], pp. 44–45).

The distributional effects of World War I borrowing were probably more modified as a result of a more progressive tax system and a wider distribution of the debt. Nevertheless, in the First War Loan, 1 per cent of subscribers accounted for 57 per cent of the loan. Of this amount over two-thirds came in individual subscriptions each in excess of $100,000 (*Annual Report of the Secretary of the Treasury, 1917*, p. 7). During the nineteen-twenties the debt became increasingly concentrated in the commercial banks and non-financial corporations (*Banking and Monetary Statistics*, p. 512).

27. See, for example, *Federal Reserve Bulletin* (July, 1948), Table 18, p. 200; (August, 1949), p. 910.

28. Cf. Richard W. Lindholm *Public Finance and Fiscal Policy* (New York: Pitman Publishing Corp., 1950), p. 307.

29. This paper was written before two additional studies of distributional effects had appeared. Donald C. Miller in his *Taxes, The Public Debt and Transfers of Income* (Urbana, Illinois: The University of Illinois Press, 1950), examines in considerable detail the distribution of the federal debt and taxes in 1945. The end-differences in his assumptions from our own center on the debt ownership side. On the tax side there is substantial similarity in methods and results even to the making of alternative assumptions about the incidence of corporate income taxes. On the debt side, however, a considerably greater percentage of interest receipts are assigned to the $5,000 and over classes. As a result, while in both our studies there is a distributional effect in favor of the under $1,000 classes, in Miller's study, in contrast to the results presented here, there is secured a net transfer in favor of the $5,000 and over classes.

A second recent study supports the conclusions of this paper: that there is a net distributional effect in favor of the below $5,000 income classes (Eugene R. Schlesinger, "The Statistical Allocation of Taxes and Expenditures in 1938/39 and 1946/47." Appendix to John H. Adler, "The Fiscal System, the Distribution of Income and Public Welfare," in *Fiscal Policies and the American Economy*, ed. by Kenyon E. Poole [New York: Prentice-Hall, Inc., 1951], chap. viii, esp. pp. 410–21). Estimates are made here of distributions of benefits from all government expenditures in the fiscal year 1947 (state and local undistinguished from federal) and similarly for the distribution of taxes. A percentage of taxes given by the ratio of total interest payments to total taxes in the Schlesinger study was calculated and applied to estimated tax payments of each income class. Comparison with interest receipts of each income class indicate that all the below $5,000 classes benefited except for the $4,000 to $4,999 class. The bulk of net disbursements was made by the $7,500 and over category (see pp. 412, 418–19). These distributional effects are secured even though state and local taxes and debt structures are consolidated with the federal.

INVESTMENT DEVELOPMENT COMPANIES

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INTRODUCTION

THE PROBLEMS ARISING OUT OF A DEFENSE economy and the reimposition of an excess-profits tax have again focused attention upon the adequacy of the supply of capital funds, especially for new and growing enterprises. This problem has occasioned a great deal of discussion during the past few years both in the journals and in congressional circles.[1]

Such data as are available do not show any general shortage of equity capital nor do they indicate that business is receiving a substantially smaller proportion of its funds from the capital markets than it did during the twenties. However, some influences have developed which have increased the difficulties of new and growing small concerns in obtaining venture capital. This is due in part to the increasing levels of taxation, both corporate and personal; to the desire for security on the part of many investors which has been encouraged in part by the tax structure and by the tax-free feature of municipal bonds; and to the institutionalization of savings which has been going on at an increasing rate in the last few years. A favorable factor in this situation is the recent appearance of a new form of financial organization which has as its primary purpose the provision of venture capital for new and growing business enterprises. These organizations will be referred to as "investment development companies" for purposes of this paper.

1. See for example: Neil H. Jacoby, "The Demand for Funds by American Business Enterprises: Retrospect and Prospect," *Journal of Finance*, October, 1948; Marshall D. Ketchum, "The Financial Problem of Small Business," *Journal of Business*, April, 1944; Emerson P. Schmidt, "The Role and Problems of Small Business," *Law and Contemporary Problems*, Summer-Autumn, 1945; William F. Butler and Robert P. Ulin, "Business Needs for Venture Capital," *Harvard Business Review*, July, 1950; Clay J. Anderson, "Trends in The Supply of Equity Capital," *Harvard Business Review*, September, 1950; and "Hearings before the Joint Committee on the Economic Report," Congress of the United States, *Volume and Stability of Private Investment* (December 6–16, 1949).

Distinctive Characteristics of Investment Development Companies

The investment development companies are privately established profit-seeking organizations whose primary function is that of providing venture capital not otherwise available to new and growing business ventures. They usually supply equity capital, but some loan capital has also been provided when its use seemed advantageous. The investment development companies take an active continuing interest in the companes they finance, but do not obtain voting control. They aid their development through expert management counsel and guidance and continued financial assistance. A list of the principal investment development companies showing their location, date of establishment, and form of organization is presented in Table 1.

TABLE 1

Principal Investment Development Companies

Name of Company	Location	Form of Organization	Date Org.*
American Research and Development Corporation	Boston	Corporation—public sale of securities	June 1946
New Enterprises, Inc.	Boston	Corporation—restricted distribution of securities	Feb. 1946
Rockefeller Brothers, Inc.	New York	Corporation—restricted distribution of securities	1946
Industrial Capital Corporation†	San Francisco	Corporation—restricted distribution of securities	May 1946
J. H. Whitney & Company	New York	Partnership	Feb. 1946
Wm. A. M. Burden & Co.	New York	Partnership	June 1949
Payson & Trask	New York	Partnership	June 1947
Henry Sears & Co.	New York	Partnership	Sept. 1949
Fox, Wells & Company	New York	Partnership	Feb. 1951
T. Mellon & Sons	Pittsburgh	Partnership Association	Jan. 1946
Nathan W. Levin	New York	Proprietorship	Sept. 1937

* None of the above-named companies had discontinued operations as of April, 1951.

† This company confines its activities to the West Coast at the present time and therefore does not meet completely the earlier description of investment development companies.

These organizations generally prefer to invest in enterprises having new processes or products, or making use of new ideas with competitive advantages. They will also provide funds to develop new products or processes which offer prospects for the establishment of profitable business ventures. There is generally no restriction as to the location of prospective ventures and at least one company, Rockefeller Brothers, Incorporated, has taken an active interest in foreign investments. Investments are disposed of by the investment development companies when the success of the venture which has been fi-

nanced is assured, since they are primarily interested in long-term capital gains.

It should be noted that these organizations differ substantially from local or regional development groups. Such groups serve primarily to stimulate interest in, and development of, a particular area with the general economic development of the nation being of secondary importance. The profits that result from the activities of such regional groups are generally considered to be incidental to the establishment of new industries in the area. The investment development companies, on the other hand, are motivated in part at least by the prospect of profits which they feel can be made by adapting the nation's private financial facilities to the needs of speculative business ventures.

A review of the news releases and published statements of the investment development companies reveals that although these organizations have been established for profit-making purposes, their sponsors are keenly aware of the underlying significance of their activities. The following statement by the firm of J. H. Whitney and Company, submitted at the request of the Joint Committee on the Economic Report, indicates an attitude characteristic of these companies as a group:

> A primary consideration leading to the formation of the firm was the belief on the part of its founders that there existed in this country a most serious need for organized sources of venture or risk capital. The traditional American system of free enterprise is dependent upon the existence of an economy in which small business can succeed and new business can emerge. An adequate flow of venture capital is essential to the continuance of such an economy. Yet, if the trend of the years since the beginning of the great depression were to continue, that flow is by no means assured.[2]

Major Forms of Organization

Several forms of organization have been used by investment development companies. The only one which was established prior to World War II was an individual proprietorship, but none of the more recent companies have used this form of organization. The corporate form of organization in which securities have been sold to institutions and to the public has been used by the American Research and Development Corporation of Boston. The partnership form of organization or some modification of it has been used by several organizations of which J. H. Whitney and Company of New York City is one of the most active. New Enterprises, Incorporated, of Boston is typical of several companies which have used the corporate form of or-

2. *Hearings before the Joint Committee on the Economic Report, Congress of the United States, Volume and Stability of Private Investment* (December 6–16, 1949), p. 488.

ganization but have restricted the distribution of securities to a small group.

The American Research and Development Corporation.—The American Research and Development Corporation represents the only attempt among the investment development companies to secure funds through the public sale of stock. This corporation was formed in June, 1946, under the laws of Massachusetts as a closed-end investment company under Section 12 (d) (1) of the Investment Company Act of 1940. The establishment of American Research and Development Corporation was the outgrowth of a series of discussions among a group of men prominent in finance, education, and science in New England. It was their desire to see a form of organization established which would make it possible for institutional investors, such as insurance companies, investment companies, research organizations, endowment funds, and other organizations and individuals controlling large pools of capital to secure a diversification of risk which would make it possible for them to furnish some of the capital for new ventures.

That the Corporation is fulfilling the desires of its sponsors in this request is indicated by the fact that among its 619 stockholders[3] are several institutional investors. Of the 183,147 shares of stock outstanding as of March 15, 1950, 19,000 shares were held by insurance companies, 31,615 shares by investment companies, 13,000 shares by educational institutions, and 5,950 shares by industrial corporations.

American Research and Development Corporation is managed by a board of directors consisting principally of businessmen and technical experts interested in encouraging the promotion of new enterprises and a board of technical advisers, which acts in a consultative capacity. The company is national in scope and a beginning has been made in the creation of regional advisory boards in different areas of the country, starting with Providence and Philadelphia. Similar boards are also planned for Pittsburgh, Houston, Cleveland, Chicago, and the West Coast.

On December 31, 1950, the company has about $1,600,000 in cash, government bonds, and commercial paper. Up to that time $3,085,191 had been invested in twenty-five companies. In addition, private investors other than those connected with the investment development companies invested in excess of $1,000,000 in these same companies on the basis of the investigation and approval of the ventures by American Research. In March, 1949, one of the enterprises financed by American Research successfully sold $1,300,000 worth of its com-

3. As of December 31, 1950.

mon stock through an investment banking firm. Therefore, through the activities of the American Research and Development Corporation more than $5 million has been channeled into venture capital.

J. H. Whitney and Company.—The partnership form of investment development company is best represented by the firm of J. H. Whitney and Company. This organization, one of the best known and most active of the venture capital companies, was formed in February, 1946, as a seven-man partnership. Along with the several partners there are six staff assistants whose duties include the screening of applications for financial assistance. These men were chosen for their special capabilities with the thought that their diversified specialties would make possible a scientific consideration of investment opportunities.

The company is interested only in enterprises located in the United States and prefers situations involving some new product or process with distinct competitive advantages. This policy against investments outside the United States is in contrast with that of American Research and Development Corporation which takes an active interest in foreign projects. The Whitney Company policy is temporary, however, and is based upon the belief that the field of foreign investments should not be entered until objectives and methods in the domestic field become more definitely established. As of December 19, 1949, J. H. Whitney and Company had participated in the financing of seventeen enterprises, all of which may be broadly classified as venture capital investments. These investments cover a comparatively wide range as to type of business and degree of risk and range in size from $5,000 to $1,250,000.

New Enterprises, Incorporated.—The third type of investment development company, those that are incorporated but have only a small group of stockholders, is represented by such companies as New Enterprises, Incorporated, Boston; Rockefeller Brothers, Incorporated, New York City; and Industrial Capital Corporation, San Francisco, California. The first of these, New Enterprises, Incorporated, will be discussed as representative of this group.

New Enterprises was incorporated under the laws of Massachusetts in February, 1946. Its purpose, as in the case of the other investment development companies, is that of making venture capital more readily available for the development of untried business enterprises. By utilizing only private money this company and others like it have the advantages of the corporate form of organization but are not subject to the regulations of the Securities and Exchange Commission. As a result, the investment policy can be much more flexible than

would be the case if the firm were accountable to a large group of stockholders. The company acts in the capacity of a service organization to enable its twenty-seven stockholders to secure good investments. To accomplish this, the company has a revolving fund of approximately $300,000 which constitutes its total capital. This fund is kept free for reinvestment by turning over individual investments which have prospects for success directly to the stockholders of New Enterprises, Incorporated.

The reason for this action is twofold. First, it is believed that a personal relationship between the individual investor and the company financed is essential to a healthy and helpful relationship between the parties. It is felt that the investor will take a greater interest in the problems and possibilities of the business under these circumstances than would otherwise be the case.

Secondly, the direct ownership of stock by the investors rather than an indirect ownership through New Enterprises, Incorporated, reduces to a considerable extent the tax burden on realized incomes. In the case of direct ownership, there is involved only a personal income tax on the current income and capital gains, while in the case of indirect ownership through an intermediary organization such as New Enterprises, current income and capital gains are first taxed as such to the company, after which all distributions of profits to individual stockholders are taxed again as personal income. Thus, if the individual stockholder is in the 80 per cent tax bracket, another 60 per cent—eighty per cent of the 75 per cent that remains after the investment development company pays a 25 per cent capital gains tax—would have to be paid over to the Treasury. This 60 per cent added to the 25 per cent already paid by the company totals an 85 per cent tax so that out of the capital gain such an investor would retain only 15 per cent, as compared with 75 per cent when the gains are made directly by the ultimate owner.[4] New Enterprises, Incorporated, gen-

4. The investment development companies, although technically investment companies, do not qualify under the Revenue Act as regulated investment companies. The term "regulated investment company" is used in the income-tax law to refer only to such investment companies as qualify for special tax treatment under Sections 361 and 362 of the Revenue Act. If an investment company qualifies as a "regulated investment company" it is treated as a conduit for tax purposes. Under these conditions the stockholders are treated as if they were the direct owners of the portfolio securities, provided the company distributes its entire net income, including capital gains, in the form of taxable dividends. That part of the dividends of the investment company that were obtained through capital gains are so reported to the stockholders and in the case of long-term capital gains the tax rate is no greater than 25 per cent. The reason the investment development companies do not qualify as "regulated investment companies" is the diversification requirements contained in Section 361. In this section it is provided that the securities, other than government securties owned, shall be limited in respect of any one issuer to not more than 10 per cent of the outstanding voting securities of such issue. Although this restriction applies only to 50 per cent of the port-

erally retains approximately 10 per cent of the stock of the ventures financed to help meet the administrative expenses of the company.

This company is interested in reviewing any proposal within its field of interest, whether the idea is in a very early, pre-patent stage of development, or has been carried through the pilot plant stage or even to a more advanced maturity where commercial acceptance is assured and wider-scale operations are justified. If the idea presented is in a very early stage of its development and requires additional experimental proof of its practicability, New Enterprises may finance the required additional research or development either in the inventor's own laboratory or under a contract with some college or research institution. An agreement is made as to further exploitation in the event the research produces favorable results. If the merit of the idea is adequately demonstrated by the research work, a new corporation or some other form of business association may be formed to carry this operation through into the pilot plant stage and beyond.

New Enterprises, Incorporated, has invested more than $500,000 to date. Most of this amount has been invested in an aircraft company, which has developed a new type of helicopter, with the remainder going to nine other ventures, including one working on radar and guided missiles, and a manufacturer of an infrared coffee-roasting machine.

Method of Operation

Although the legal form of the investment development companies ranges from the partnership to the publicly financed corporation, their investment activities and general objectives are approximately the same. It is convenient to begin with a consideration of the application for financial assistance by a new business venture.

If the proposed project falls within the scope of interest of the particular investment development company to which it has been submitted, it receives a rigorous examination. A careful and scientific appraisal of applications for financial assistance is one of the basic guides which these companies have established to enable them to obtain appropriate investments. Some of the companies conduct their own investigations as in the case of J. H. Whitney and Company mentioned earlier, while others utilize independent research

folio, it would still be extremely difficult for the average investment development company to qualify due to the fact that effective financial assistance of the equity type generally requires an amount substantially greater than 10 per cent of the total voting stock of new enterprises. In the case of American Research and Development Corporation, only one company financed would come within these limits.

organizations for technical advice. The American Research and Development Corporation, in contrast with the first two approaches mentioned, depends upon a board of technical advisers, which acts in a consultative capacity. These advisers, all well known in their respective fields, have at their command the facilities of their respective university laboratories and libraries and a wide range of contacts upon which they can draw to enable them to arrive at a decision as to the desirability of the project under consideration.

The result of this scientific investigation of proposed projects is that a very high percentage of the applications is rejected. It is obvious that these examinations cannot be made with complete accuracy, but it is safe to assume that the chance of successful selection of new business enterprises is greatly enhanced by such a rigorous technique of examination.

In this connection it should be noted that most of the investment development companies have a special field of interest. By restricting their attention to certain fields of activity it is possible to become more familiar with the processes and special problems involved and to make more intelligent decisions as to the merits of the project proposed.

After an application for financial assistance has been approved, appropriate extensions of capital are made to the new business venture. The investment development companies generally take an equity position in the firms they finance, but may also extend loan capital. There is no set formula to determine the exact form that investment will take; each business is considered individually to determine the most appropriate financing plan for the particular conditions involved. In cases where loan capital is extended the investment development companies are careful to avoid impairing the general credit of the business. Therefore, mortgage bonds are seldom used as a means of extending credit, since the existence of senior obligations with a prior claim to fixed assets might make it more difficult to secure adequate current financing for future growth.

The exclusion of loan capital altogether would in some cases not be in the best interest of the companies financed, in view of the corporate income tax laws which exempt interest paid on bonded indebtedness from tax liability. It should also be mentioned that the acceptance of bonds and preferred stocks by the investment development companies provides these companies with a current income to meet their administrative expenses while waiting for their capital gains to materialize from common stock investments.

The investment development companies play a continuing and

active part in the enterprises which they finance but do not require voting control. An exception is the case where the entrepreneurs are obviously not equipped through ability or experience to manage the affairs of the company they are forming and must of necessity depend upon the experience of the investment development company. In those cases where voting control does not exist, and this is the customary situation, the investment development companies do expect to be influential in the affairs of the companies they finance. This is generally accomplished by including members of the board of the investment development company on the board of directors of the new enterprise.

The investment in risk enterprises by the American Research and Development Corporation extends from 10 per cent of the voting stock of Apple Concentrates, Incorporated, to 75 per cent of the voting stock of Ionics, Incorporated. The investments of J. H. Whitney and Company range from interests of 1 per cent to 50 per cent in firms financed.

In some cases the voting trust arrangement has been utilized for purposes of administering control over the new ventures and in other cases group control has been used. In a few instances more than one investment development company has participated in the financing of the same project, and where voting control is desirable these companies co-operate closely in the exercise of their voting rights.

It should be noted that the matter of control has not been one of the important considerations in determining the decision to invest in certain firms, nor have any disputes arisen as a result of a lack of insistence upon control by the investment development companies. If any doubt exists as to the need for control in any particular venture for purposes of forcing the entrepreneurs to follow a prescribed policy, the application is rejected. A mutual confidence and respect between the investing company and the entrepreneurs of the business venture is considered an absolute requisite to the initiation of financial relationships.

Closely related to the matter of control is that of management counsel and guidance. All investment development companies that have been established at the present time provide such guidance and counsel to the business ventures in which they participate. There is reason to believe, from the experience of the ventures financed, that this factor may be one of the significant contributions of the investment development companies. The following statement from a brochure of American Research and Development Corporation is indica-

tive of the attitudes of all the companies with regard to management counsel:

> It is apparent from discussions with individuals and groups about to embark on a new enterprise, as well as with the management of existing businesses, that business counsel as well as financial assistance is usually sought.
>
> The American Research and Development Corporation makes such counsel available to those enterprises in which it has a financial stake. The Corporation usually will be represented on the Board of Directors, will assist in the procurement of personnel for key positions, and will endeavor to make available the best possible technical, marketing and administrative assistance. It proposes, in short, to play a continuing and active part in the enterprises in which it has invested.

In the case of New Enterprises, Incorporated, the provision of management counsel plays a similar role and "even after New Enterprises has transferred its equity to its stockholders, financial and technical counsel is available to the management of the new venture as long as it is required."

The problem of securing adequate management counsel has been one of the most difficult factors that growing businesses have had to overcome and it is the belief of the sponsor of the investment development companies that a combination of the courage and inventiveness of the younger generation together with the wisdom and experience of the older men in the field of business and finance should do much to bring about success.

A final characteristic of the operation of the investment development companies, which represents somewhat of a departure from the traditional characteristics of financial arrangements, is the continued financial assistance available to the ventures financed. It is the plan of the investment companies to provide such financial assistance only when it is not available from other sources on appropriate terms. The provision of additional capital is not an attempt to dominate the firms financially, but rather, an honest attempt to assist them until such time as they are able to secure needed funds from other sources.

Legal Status

An interesting phase of the study of the investment development companies relates to the legal status of the corporate form of organization. The American Research and Development Corporation has taken the initiative in working for a modification of the laws as they apply to the investment development companies, and since it is the only one of the groups which solicits public subscription and sale of

its stock, the following section will pertain to this particular company.

Under the Investment Company Act of 1940, these companies are described as closed-end, non-diversified investment companies of the management type. As closed-end companies they are under no obligation to buy back the shares they have issued. Among the stockholders of American Research and Development Corporation, as was noted earlier, are several registered investment companies. The desirability of utilizing a portion of the large pool of funds held by these companies for the promotion of new enterprises was recognized by the Securities and Exchange Commission. The Commission submitted to Congress for passage what is now Section 12 (e) of the Investment Company Act of 1940, without which an investment company could not legally purchase more than 3 per cent of the voting stock of such companies as American Research. Section 12 (e) specifically authorizes registered investment companies to purchase securities of another corporation engaged in the business of underwriting, furnishing capital to industry, financing promotional enterprises, purchasing securities of issuers for which no ready market is in existence, and similar activities, provided that the aggregate cost of the securities of the corporation purchased by the registered investment company does not exceed 50 per cent of the value of the total assets of the registered investment company.

The sale of stock to investment companies by American Research is also contingent upon the issuance of no securities by it except one class of common stock, other than short-term paper and securities representing bank loans. When the Securities and Exchange Commission approved the registration statement of American Research and Development Corporation, it limited the investment by any single investment company to a maximum of 9.9 per cent of the shares of American Research and Development Corporation.

Another limiting factor was Section 12 (d) of the Investment Company Act of 1940 which provides that the stock of corporations such as American Research and Development Corporation can be owned only by investment companies. When American Research and Development Corporation was organized it was considered desirable by the organizers of this company, and also by the Securities and Exchange Commission, that other institutional investors such as insurance companies, educational institutions, foundations, and so forth, as well as private individuals be permitted and encouraged to invest in this company. The Securities and Exchange Commission, therefore, granted an exemption permitting such participation, pro-

vided that at least $1,500,000 was subscribed by institutional investors of all kinds. The Securities and Exchange Commission stipulated that the company must start with a minimum capitalization of $3,000,000. This exemption was made possible by a special provision in the Investment Company Act of 1940 which permits the Securities and Exchange Commission to grant such exemptions when deemed advisable.

With regard to state regulations relating to the right of investment companies to invest in these venture capital companies, in the states of Ohio, New Hampshire, Minnesota, and Wisconsin it was illegal for open-end investment companies to buy stock in any corporation which had not been in existence for at least three years. Therefore, no open-end investment company could have purchased stock in the investment development companies during their early years of development if its shares were qualified in any of the above-named states, and all large investment companies have been qualified under the laws of every state. The officials of American Research and Development Corporation have been successful in persuading Ohio, New Hampshire, and Minnesota to eliminate the three-year requirement to the extent of 5 per cent of the assets of any investment company. Wisconsin amended its regulations to permit such investments up to 2 per cent of investment company assets. In states other than these four there were no restrictions, and there have been no restrictions on investment in investment development companies by closed-end investment companies because these companies are not engaged in selling shares to the public. This modification of state laws is of particular significance for newly formed investment development companies and those which may be organized in the future.

Among the stockholders of the American Research and Development Corporation, as noted earlier, are two Massachusetts life insurance companies. These companies, The John Hancock Mutual Life Insurance Company and the State Mutual Life Assurance Company, under the laws of Massachusetts can invest in stock under certain circumstances, provided they do not purchase more than 10 per cent of the capital stock of a company. With regard to the other states which are important from the viewpoint of the number of insurance companies organized therein, only Iowa, Connecticut, Pennsylvania, and Wisconsin permit investment in stock.[5]

In summary, the investment development companies, through the

5. Testimony by Mr. Merrill Griswold, member of the Executive Committee of the Board of Directors, American Research and Development Corporation, on the *Hearings before the Joint Committee on the Economic Report, Congress of the United States, Volume and Stability of Private Investment* (December 12, 1949, p. 450).

efforts of a distinguished group of sponsors, have been instrumental in bringing about the modification of both federal and state laws to permit a more reasonable working arrangement for these companies. There remains, however, an area for further adjustment of legal rules, particularly with regard to tax laws, and it is believed that such changes will eventually be made to facilitate the operation of these highly desirable organizations.

Success of Operations

Conclusions as to the ultimate success of these organizations are somewhat uncertain at the present time. They can accomplish their objectives only through the realization of satisfactory profits. A record of financial success will encourage the formation of similar organizations in other parts of the country and existing institutions will receive additional funds from which increased expenditures for research and development can be made.

When these investment development companies were first established it was believed by some of the founders that if only one or two out of ten projects became successful the companies would do very well. To the present time this minimum requirement for success has been far exceeded. Of the twenty-five projects participated in by the American Research and Development Corporation, only one, Island Packers, Inc., has proved a failure. There is some possibility that this concern may be reorganized and in all events the investment of about $275,000 will not prove a total loss. It has been reported, however, that in practically every case these companies have experienced periods of crisis common to all new ventures and at one time or another it has appeared that they might not survive. The continued support of these companies by American Research served to bolster their position until they were out of difficulty. Having passed through these critical periods, the companies appear to be on a sound financial basis, attesting to the value of continuing support.

J. H. Whitney and Company reports that of the seventeen projects in which they are financially interested, two have been extremely successful; five have been successful or moderately successful and have resulted, or in all probability will result, in some profit to the firm; two appear likely to result in some loss less than total; four look as though they may possibly involve a total loss; one has already resulted in a total loss; and three have progressed insufficiently for appraisal. The firm of New Enterprises, Incorporated, reports that of the ten ventures in which they have invested money, two have failed while the prospects of success for the other eight are good.

Rockefeller Brothers, Incorporated, reports investment in twenty-four projects, none of which has matured sufficiently to assess accurately its probable accomplishments. This would seem to indicate that none of the twenty-four projects has failed to the present time.

Financial statements are only available for American Research and Development Corporation since the other investment development companies are privately financed. At the end of its fourth full year of existence on December 31, 1950, the operations of American Research were close to the break-even point. Its income for the year was $138,011 while expenses were $156,673, resulting in an operating loss of $18,662 for the year. However, during the last six months of 1950 the company operated at a profit of $9,590.[6]

The loss for 1950 brought the total deficits from operations to $190,283.09. This plus a realized net loss on investments of $241,-227.93 brought the deficit to $431,511.02 as of December 31, 1950.[7] However, the unrealized appreciation based on a fair value for the investments as determined by the directors (after an allowance for federal income taxes which would have to be paid if the appreciation were realized) was $520,933.66 as of December 31, 1950.[8]

Conclusions

In the light of the methods of operation, policies, and objectives of the investment development companies noted in the foregoing paragraphs it is reasonable to suppose that these companies are in a position to contribute materially to the economic welfare of the nation. Specifically, these organizations may make possible a more dynamic long-term economic growth as well as greater cyclical stability through the following factors: (1) broadening of institutional investments, (2) superior risk appraisal, (3) more equity capital investments, (4) management counsel, and (5) continued financial assistance.

These contributions can be especially worthwhile in meeting the needs of a defense economy. At this time it is more important than ever that those businesses which can add to the national welfare should find it possible to obtain capital. Moreover, any wastage of resources by investment in unsuccesful ventures will add to the inflationary potential. Therefore, it is especially desirable now to have investment in new and growing businesses based upon careful

6. American Research and Development Corporation, *Fifth Annual Report* (1950), p. 5.

7. *Ibid.*, p. 33.

8. *Ibid.*, p. 31.

research into the prospects of success of the concerns such as is done by the investment development companies.

The ultimate success of the investment development companies in contributing to the economic welfare of the nation through assisting in the growth of new enterprises and by serving to increase the stability of the economy, depends upon their ability to secure a fair return from their operations. A satisfactory return to these enterprises will provide not only for the establishment of more such organizations but will also increase the flow of funds to the existing institutions. As the number of such organizations increases, the more adequately will the needs of new and growing business enterprises be met. Although the existing investment development companies have made extremely valuable contributions in the short period within which they have operated, greater benefits can be derived from them if their numbers are expanded greatly. Several hundred such successful organizations, each with a specialized field of interest and each providing not only equity capital but also management counsel and continuing financial assistance, will do much toward the maintenance of a dynamic free-enterprise economy.

BANK RESERVE REQUIREMENTS IN AUSTRALIA*

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I. INTRODUCTION

THE AUSTRALIAN RESERVE requirement arrangement, introduced during World War II, requires the trading banks[1] to maintain reserves in special deposit accounts with the Commonwealth Bank of Australia, similar to the reserve accounts maintained by member banks in the United States. However, the Australian formula relates the banks' required reserves to increases in their total assets, *including* balances in the special account, rather than to their total deposits, as is the practice in the United States. The Commonwealth (central) Bank is empowered to regulate and vary the amount that must be maintained in the special account by stipulating the proportion of new assets to be involved. The special account mechanism results, therefore, in raising required reserves for the commercial banking system as a whole by some proportion (0 to 100 per cent) of any increase in total assets, *including* reserve balances.

During World War II, the proportion of the trading banks' new assets that was required to be held in the special account was set close to 100 per cent, and the net expansion in the banks' total assets was limited mainly to the growth of balances in that special account. From mid-1945 to mid-1948, only 45 per cent of new assets was required to take the form of balances in the special account, thereby permitting a rise in the banks' conventional earning assets, i.e., loans and investments. The proportion required to be held in the special account was raised slightly after mid-1948.

This article will describe the genesis of the special account mechanism and will examine its efficacy as a credit control device during and since World War II.

II. BACKGROUND OF THE RESERVE REQUIREMENT ARRANGEMENT

Prior to mid-1941, no mandatory reserve requirements were in effect in Australia. On the contrary, the trading banks maintained fractional reserves against deposits as a matter of prudence, in the

* The views expressed herein are the author's and are not necessarily those of the Chase National Bank.

1. There are nine Australian trading (commercial) banks.

forms of vault cash and deposits with the Commonwealth Bank of Australia and with London banks. The Commonwealth Bank undertook to influence the volume of the trading banks' reserves by purchasing or selling either Commonwealth government securities or London funds from the banks or in the market.

An inquiry into the monetary and banking system, conducted in 1937,[2] pointed out that the effectiveness of the Commonwealth Bank's purchases and sales of government securities was limited by the narrowness of the market, i.e., by the rapidity with which prices and yields changed. Moreover, there was nothing to compel the trading banks or others to sell London funds to the Commonwealth Bank, or vice versa. It was recognized also that the impact of reserve fluctuations upon the availability of credit from the trading banks was not always uniform or in conformity with the Commonwealth Bank's objectives. For these reasons, the Commonwealth Bank Board testified during the inquiry that the lack of rigid reserve requirements was a deterrent to the effectiveness of central bank action.

The Royal Commission on the Monetary and Banking System recommended that special powers be given to the Commonwealth Bank, authorizing it to impose and alter reserve requirements with the Treasury's consent. On the basis of these recommendations, a Commonwealth Bank Bill was introduced in 1938 to require the trading banks to maintain minimum cash resources (including deposits with the Commonwealth Bank) equal to 20 per cent of their total liabilities. However, no action was taken on the bill by the Legislature.

As the pattern of World War II finance unfolded, the trading banks in September, 1941, entered into a voluntary agreement with the Commonwealth Bank to deposit in a special account with the latter "all surplus investable funds accruing in their hands, i.e., all funds over and above those necessary to enable the banks to meet the ... (credit) requirements of the public and ... (to protect) their depositors."[3]

The voluntary agreement was replaced two months later by much more binding National Security Regulations. The Regulations required each trading bank to be licensed and to keep on deposit with the Commonwealth Bank in a special account a specified portion of its "surplus investable funds," defined as the amount by which the bank's

2. Royal Commission on the Monetary and Banking System.

3. The trading banks also agreed: (1) to conform to variations by the Commonwealth Bank in the rate of interest paid on deposits in the special account so as to insure the avoidance of excess war profits, (2) to make new loans only in accordance with the credit policy formulated by the Commonwealth Bank, and (3) to purchase government securities only with the approval of the Commonwealth Bank.

assets in Australia exceeded the average in August, 1939. Provision was made for the payment of interest on the balances in the special account at a rate that would keep the trading banks' profits equal to the average for the three immediate prewar years.[4]

The special account arrangement, introduced during World War II as a temporary innovation, was formalized and made a permanent part of the banking system by the enactment of the Banking Act, 1945.[5] Under the terms of the Act, trading banks were required to establish and maintain a special account with the reorganized Commonwealth Bank.[6] The Act required the transfer to the new special account on August 28, 1945, of the balance then outstanding in the old special account under the National Security Regulations. Furthermore, the Act empowered the Commonwealth Bank to determine and prescribe the amount required to be carried in the new special account, the only limitation being that the amount was limited to the sum transferred on August 28, 1945, plus any increase in the banks' assets in Australia over and above the average level in July, 1945. In essence, the effect of this was to limit the maximum amount required to be carried in the special account to the excess of total funds acquired by the trading banks over the average held in August, 1939. The Act required the Commonwealth Bank to pay interest semiannually to the trading banks on the balances in the special account, at a rate to be approved by the Treasury, but not to exceed 17 shillings and 6 pence per cent per anum (approximately $\frac{7}{8}$ per cent).[7]

III. Credit Control during World War II

During World War II, when the special account mechanism was first operated, the principal demand for credit accommodation arose from the Commonwealth government. From June, 1939, to June, 1945, the Commonwealth government spent a total of £2,111 million, of which only £722 million, or 34 per cent, was financed from tax rev-

4. In addition, the Regulations required the trading banks to comply with the Commonwealth Bank's credit policy when making loans and to obtain the Commonwealth Bank's consent when subscribing to new issues of government securities or when purchasing outstanding securities.

5. No. 14 of 1945, August 3, 1945.

6. The Commonwealth Bank was reconstituted by the Commonwealth Bank Act 1945.

7. Another provision of the Banking Act 1945 provided for the Commonwealth Bank to "give directions as to the . . . purposes for which advances may or may not be made by banks. . . ." Moreover, trading banks were prohibited from purchasing or subscribing to government and corporate securities "except with the consent in writing of the Commonwealth Bank. . . ." Finally, the Act provided for the Commonwealth Bank, with Treasury approval, to control and regulate rates of interest charged by banks and by other lending agencies.

enue. The remainder, or £1,389 million, was financed by borrowing.[8]

Of the total amount borrowed by the Commonwealth government, £332 million, or 24 per cent, were in the form of Treasury bills sold directly to the Commonwealth Bank. The remaining £1,057 million were in the form of savings obligations and longer-term marketable securities, sold initially to the non-bank public. The Commonwealth Bank, in conjunction with the trading banks, did subscribe to the first marketable war loan, amounting to £12 million, floated in December, 1939. However, all subsequent government issues, other than Treasury bills, were subscribed in full by the non-bank public.[9] The Commonwealth Bank, however, purchased outstanding government issues from the public whenever it appeared necessary, in order to assure holders' liquidity, to prevent panic sales and to stabilize interest rates.[10]

Purchases of government securities by the Commonwealth Bank, either directly from the government or in the market, automatically caused the trading banks' deposit liabilities and reserve balances in the special account to rise on a one-for-one ratio. If there had been no reserve requirements, as was the case prior to 1941, the trading banks would have been able to expand their deposit liabilities further, by some multiple of the increment in their cash reserves, through purchases of government securities and through loans to private borrowers, if the demand existed. However, such a multiple expansion could not take place since the Commonwealth Bank directed the trading banks each month to maintain in the special account a balance equal to nearly 100 per cent of the increase during the preceding month in their total assets in Australia.[11]

In the foregoing manner, the trading banks virtually were prevented from purchasing securities or from making loans on their own initiative. Rather, for the trading banks as an aggregate, growth took the forms mainly, on the liability side of the combined balance sheet, of an increase in deposits, and on the asset side of the combined balance sheet, of an increase in special accounts with the Commonwealth Bank (see Chart I and Table 1). The Commonwealth Bank did per-

8. John Sands, *Commonwealth Bank of Australia in the Second World War* (Sidney, 1947), p. 10. This was a slightly lower ratio of funds raised by taxation than in the United States, where 40 per cent of total governmental expenditures during World War II was financed by taxation.

9. *Ibid.*, pp. 97–109.

10. *Ibid.*, pp. 120–25. Market support operations also were carried out by the National Debt Sinking Fund.

11. *Ibid.*, p. 13. Interest was allowed on the balances at the rate of ¾ per cent.

CHART I

CUMULATIVE CHANGES IN PRINCIPAL FACTORS AFFECTING DEPOSITS OF AUSTRALIAN TRADING BANKS, DECEMBER 1938—OCTOBER, 1950

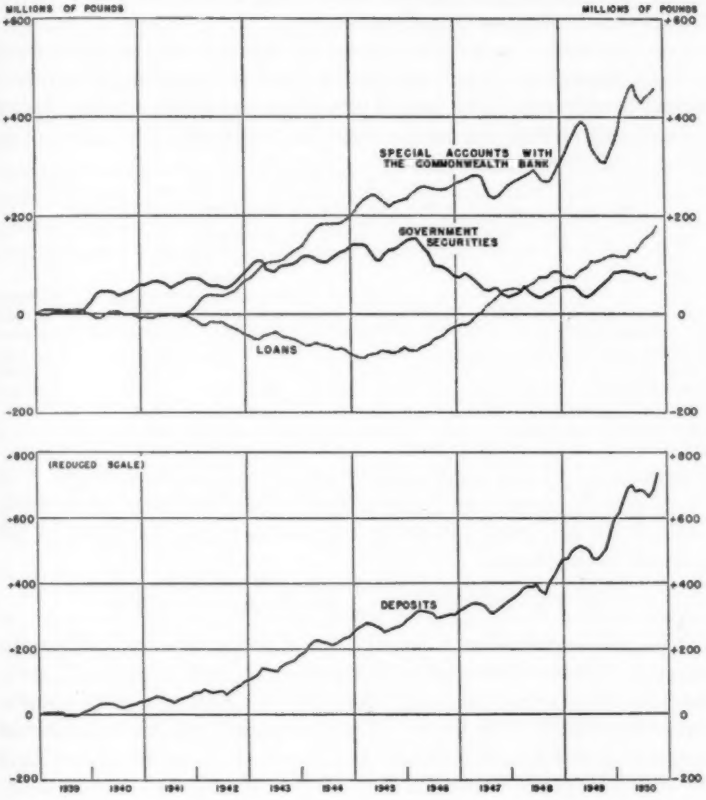

TABLE 1

WARTIME CHANGES IN PRINCIPAL ASSETS AND LIABILITIES OF AUSTRALIAN TRADING BANKS
(in £ million)

	AMOUNTS		
	June, 1939	June, 1945	CHANGE
Cash and due from banks	28.6	36.5	+ 7.9
Special accounts with Commonwealth Bank	...	241.8	+ 241.8
Government securities	46.0	150.8	+ 104.8
Loans	291.7	207.9	— 83.8
Deposits	318.0	582.5	+ 264.5

Source: *Statistical Bulletin of Commonwealth Bank of Australia.*

mit the trading banks, during the war, to purchase from it about £105 million of government securities in order to recoup the trading banks' loss of earnings, incurred by the reduction in their loans as the private demand for credit diminished.[12]

Despite the existence of the special account mechanism, the demand by the Commonwealth government for bank credit during World War II was clearly met. The special account mechanism merely shifted virtually all of that demand to the Commonwealth Bank, where an

TABLE 2

WARTIME CHANGES IN PRINCIPAL ASSETS AND LIABILITIES OF THE COMMONWEALTH BANK OF AUSTRALIA
(in £ million)

	AMOUNTS		
	June, 1939	June, 1945	CHANGE
Cash	35.1	184.7	+ 149.6
Government securities	93.3	418.1	+ 324.8
Discounts and advances	16.6	20.6	+ 4.0
Special account	...	241.8	+ 241.8
Other deposits	84.2	198.3	+ 114.1
Notes	47.5	185.5	+ 138.0

Source: Same as Table 1.

expansion in central bank credit took place commensurately. The World War II expansion of central bank credit is illustrated in Table 2, which shows changes in the principal assets and liabilities of the Commonwealth Bank.

IV. CREDIT CONTROL IN THE POSTWAR PERIOD

After the end of World War II, the demand for credit from the government sector of the Australian economy diminished. From June, 1945, to June, 1950, the public debt of the Commonwealth government expanded by only £198 million, compared with an expansion of £1,389 million during World War II. Moreover, the expansion of £198 million in the public debt after Worlid War II reflected mainly an increase of £332 million in the funded debt and the redemption of £130 million in Treasury bills.[13]

At the same time, however, the credit needs of business increased. In recognition of this, the Commonwealth Bank lowered the proportion of new assets of the trading banks that was required to take the form of balances in the special account. From July, 1945, to July, 1948, the banks were required to carry only about 45 per cent of the increase in their total assets in the form of deposits in the special

12. *Ibid.*, pp. 14–15.

13. *Statistical Bulletin of the Commonwealth Bank of Australia.*

account.[14] After mid-1948, the proportion of new assets required to be maintained in the special account was raised and now stands at about 50 per cent.[15] The remainder of the trading banks' asset expansion was permitted to take the conventional form of loans and investments.

As a consequence of the lowering of reserve requirements, the postwar expansion in the trading banks' deposit liabilities was accounted for, to the extent of about 50 per cent, by a rise in loans, and to the extent of another 50 per cent, by a rise in balances in the special account. The trading banks' investments in government securities were reduced somewhat in order to finance a part of the loan rise. These changes are outlined in Table 3 and also are depicted in Chart I.

TABLE 3

POSTWAR CHANGES IN PRINCIPAL ASSETS AND LIABILITIES OF AUSTRALIAN TRADING BANKS
(in £ million)

	AMOUNTS		
	June, 1939	June, 1945	CHANGE
Cash and due from banks	36.5	51.1	+ 14.6
Special accounts with Commonwealth Bank	241.8	442.8	+ 201.0
Government securities	150.8	116.8	— 34.0
Loans	207.9	427.2	+ 219.3
Deposits	582.5	1004.9	+ 422.4

Source: Same as Table 1.

The principal source of the expansion in the trading banks' balances in the special account was a rise of £323 million in the cash holdings of the Commonwealth Bank of Australia, as is shown in Table 4. The Commonwealth Bank's holdings of government securities, on the other hand, were reduced by £40 million, largely by the government's retirement of outstanding Treasury bills. This latter factor tended to reduce the trading banks' reserves, as did the expansion in the note issue and in other deposit liabilities of the Commonwealth Bank. However, these forces were more than offset by the increase of £75 million in the discounts and advances of the Commonwealth Bank and by the rise in cash holdings.

The rise in the Commonwealth Bank's cash holdings, represented mainly by gold and balances abroad, was directly related to Australia's balance of payments position vis-à-vis the rest of the world. Dur-

14. Commonwealth Bank of Australia, *Annual Report, June 30, 1949*, p. 30.

15. Statement of R. F. Holder, Acting Economist, Bank of New South Wales, before the Third International Conference of Commercial Bank Economists, Atlantic City, New Jersey, June 6, 1950 (unpublished).

ing the period from July 1, 1945, to June 30, 1950, Australia realized a favorable balance of trade amounting to £403 million,[16] a large part of which was reflected in the rise in Commonwealth Bank holdings of cash assets, against which enlarged deposits and note liabilities were incurred.

The postwar expansion in the discounts and advances of the Commonwealth Bank was specifically designed to help finance the trading banks' loan expansion without releasing funds from the special account.[17] To the extent that the Commonwealth Bank provided reserves in this manner, the restrictive effect of the 45–50 per cent reserve requirement was partly nullified.

TABLE 4

POSTWAR CHANGES IN PRINCIPAL ASSETS AND LIABILITIES OF THE COMMONWEALTH BANK OF AUSTRALIA
(in £ million)

	Amounts		
	June, 1945	June, 1950	Change
Cash	184.7	508.1	+ 323.4
Government securities	418.1	378.0	− 40.1
Discounts and advances	20.6	95.7	+ 75.1
Special account	241.8	442.8	+ 201.0
Other deposits	198.3	328.0	+ 129.7
Notes	185.5	230.6	+ 45.1

Source: Same as Table 1.

Not only did the Commonwealth Bank pursue a liberal discount policy during the postwar period, but it failed also to adopt a restrictive open-market policy so as to implement the special account mechanism. The Commonwealth Bank failed to reduce its holdings of government securities sufficiently to offset the inflow of gold and the accumulation of foreign balances. As a consequence, the restrictive influence of high reserve requirements was partly aborted.

V. Control over the Supply of Bank Reserves

Experience during the war and postwar periods suggests that the special account mechanism merely is another form of reserve requirement whose effectiveness as a credit control device is dependent upon central bank policy with respect to the availability of new reserves to meet the requirement. In the period examined, so long as the central bank took steps to supply reserves freely, e.g.,

16. International Monetary Fund: *International Monetary Statistics* (February, 1951), p. 4.

17. Commonwealth Bank of Australia, *Annual Report, June 30, 1949*, p. 31.

supported the government securities market, no over-all limitation was placed upon the expansion of the money supply. Bank credit expansion was curtailed only in the sense that commercial banks were prohibited from making loans and investments. However, such credit as was demanded was provided by the central bank, in the form of investments or loans by that institution. Under such circumstances, the expansion of the money supply doubtless was nearly the same as would have resulted if commercial banks had been the lenders. Only the composition, and not the volume, of the commercial banks' assets was affected, as required reserves were held in lieu of loans and investments.

The special account mechanism's effectiveness as a credit control device could have been assured only if the central bank had followed a restrictive credit policy in order to limit the availability of commercial bank reserves. The pursuance of such a restrictive policy, of itself, would have obviated the necessity for a complex reserve requirement mechanism.

SOME REFLECTIONS ON CURRENT WAR FINANCING

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INTRODUCTION

IT WAS ELEVEN YEARS AGO that John Maynard Keynes said with reference to the United States experiment in deficit financing, "It is, it seems, politically impossible for a capitalistic democracy to organize expenditure on the scale necessary to make the grand experiment which would prove my case, except in war conditions."[1] As it turned out, the "grand experiment" did come with World War II and few could deny that the case was rather thoroughly proved, perhaps too well. How ironic, one might say, that, in the absence of intelligent fiscal policy, the economy had to wait for a war to rescue it from a decade of deflation and low-level employment. But it would be no less ironic and unfortunate if, in the course of future war financing, there should develop something like a reversal of that situation. Evidence may be adduced to suggest that whereas unintelligent fiscal policy in the past forced the nation to wait for a war to restore it to high-level employment, equally unintelligent fiscal policy in the current expansion of military financing may force the nation to wait for deflation and low-level employment as a minimum prerequisite for the eventual removal of the direct controls which become necessary as military financing expands. Instead of requiring a war to eliminate unemployment we may require unemployment to eliminate the restrictions created by war. Hence, if it is true, as will be argued here, that current fiscal policy is likely to develop inflationary pressures necessitating direct controls which cannot be removed except in the face of substantial unemployment, one may conclude that such fiscal policy represents a serious threat to future freedom. In his last article, which he called "The March into Socialism," Professor Schumpeter explained how in his opinion, "Perennial inflationary pressure can play an important part in the eventual conquest of the private-enterprise system by the bureaucracy—the resultant frictions and deadlocks being attributed to private enterprise and used as arguments for further restrictions and regulations."[2]

1. "The United States and the Keynes Plan," *The New Republic* (July 29, 1940), p. 158.

2. Joseph A. Schumpeter, "The March into Socialism," *American Economic Review, Papers and Proceedings* (1949), p. 455.

Government Bonds in a New Atmosphere of Anticipations

The nature of the general problem of war financing is well known. Non-bank borrowing, like taxation, is non-inflationary, at least in the short run, because it involves simply a transfer of purchasing power from the public to the Treasury. It differs from taxation only in that the public comes to hold bonds instead of tax receipts. On the other hand, bank borrowing is wholly and immediately inflationary in effect because it creates new purchasing power. These facts have been widely publicized. But this little knowledge may well prove to be a dangerous thing if it lends support to a financing program which is believed to be non-inflationary merely because it eliminates or minimizes the immediate increases in the money supply consequent upon bank-financed deficits. Non-bank borrowing was reasonably successful during the period of World War II because the public was willing to take and, what is much more important, to *hold* vast quantities of government bonds. There is now good reason to believe that the very factor which, more than any other, made people willing to hold bonds in the past may have changed in such a way as to make them unwilling to do so in the future. That is the factor of anticipations, so fundamental in all economic analysis. There is considerable evidence to indicate that in the basic area of anticipations the community has taken a 180 degree turn.

In 1945 most people expected an early depression, or at least a recession. Everybody was influenced by recollections of the decade of the thirties. A strong deflationary bias led to relative caution and restraint. If the public had realized or believed that the next five years would see the repudiation through inflation of perhaps thirty cents on every dollar of debt, would so few bonds have been cashed? Would the public debt have been so firmly held? What if there had been an *inflationary* bias?

Compare the situation in 1945 with the situation today or, what is more significant, with the situation as it may reasonably be expected to exist at the end of the present period of military financing. Now people have recent events to act as their guide. They are coming to be influenced, not by the experiences of the Great Depression, but by the experiences of war and postwar inflation. A deflationary tradition born of the experiences of the thirties is being replaced by an inflationary tradition born of the experiences of the forties. Just as the nation's activity in the postwar years was conditioned to a large extent by fears of deflation danger, so there is a strong likelihood that in the future it may come to be conditioned more and more by fears of inflation dan-

ger. This is crucial for fiscal policy because anticipations, the factor which made non-bank borrowing relatively safe in the past, may become the very factor which makes even non-bank borrowing dangerously inflationary in the future. If bondholders expect prices to rise rather than to fall, this expectation may cause them to seek to sell or cash their bonds, thereby contributing to the materialization of their fear.

It should be pointed out that under a strong inflationary bias it might even become difficult to sell additional bonds to the non-banking public. Professor Haley recognized that possibility by pointing out that, "This incentive [to increased effort and saving] would be even less than otherwise in the near future because people still clearly recall the way in which the balances they accumulated during World War II were depreciated by the postwar inflation."[3] However, in an atmosphere of increasing war danger there would probably be little difficulty in placing large additional quantities of bonds in the hands of the public, either by organized campaigns and appeals to patriotism or perhaps even by the Keynes proposal of involuntary savings which Senator Paul Douglas has recently revived.

Inflationary Bias and a Rigid Support Policy

If an effort is made to free the economy from direct controls at the end of the rearmament period, the Federal Reserve authorities would probably be confronted again with much the same alternatives which they faced after World War II. Suppose, as seems most likely, that there are depressive influences at work as non-bank holders seek to shift out of government bonds into private loans and investments. Such a shift may result in part from the higher interest rates to be earned on private loans, even if substantial inflation were not generally anticipated. That the Federal Reserve would again be under strong pressure to support the market is hardly open to doubt. In spite of what Senator Douglas called, "the considerable degree of conflict between the Federal Reserve Board and the Treasury on the interest rate on Government securities,"[4] the majority of Federal Reserve officials followed the Treasury line in their public statements until pressure from Congress brought the fight into the open in February of 1951. During the hearings of the Douglas Committee, Federal Re-

3. Bernard F. Haley, "Are Price Control and Rationing Necessary?" *American Economic Review, Papers and Proceedings* (1949), p. 205.

4. *Hearings before the Subcommittee on Monetary, Credit and Fiscal Policies of the Joint Committee on the Economic Report, Congress of the United States* (81st Congress, First Session, September, November, and December 1949), p. 533.

serve and Treasury officials and the Council of Economic Advisers all defended the wisdom of maintaining the long-term rate at 2½ per cent in the postwar period.[5]

If the Federal Reserve authorities should again support the price of bonds at or near par, either to maintain an orderly market or to facilitate Treasury refunding, the inflationary potential would become as vast as the public debt itself. As Marriner Eccles so aptly stated in a letter supplementing his testimony before the Douglas Committee, "In making a cheap money market for the Treasury, we cannot avoid making it for everybody. All monetary and credit restraints are gone under such conditions; the Federal Reserve becomes simply an engine of inflation."[6]

Under these circumstances the powerful weapon of open market operations as an instrument of monetary control is no longer in the hands of the Federal Reserve. Federal Reserve open-market purchases are made according to the decisions of all the people and institutions holding government bonds. In other words, this important decisions can be made by everyone *except* the single authority which is supposed to make it!

It might be argued that this policy enjoyed fair success in the period following World War II, if a cut of thirty cents on the consumer's dollar is not considered unacceptable. But whether it can be done again in anything like the same manner is at least open to question. A changed atmosphere of anticipations involving a general inflationary bias could make the straight support program wholly untenable.

A greater sophistication consequent upon education and recent experience may make large numbers of individuals unwilling to sit back and take the beating involved in holding bonds. Consider the following statement which Chairman McCabe made to the House Banking and Currency Committee in 1948 and repeated in a public speech a short time later:

> It is my view that the System is obligated to maintain a market for Government securities and to assure orderly conditions in that market, not primarily because of an implied commitment to wartime investors that their savings would be protected, nor to aid the Treasury in refunding maturing debt, but because of the widespread repercussions that would ensue throughout the economy if the vast holdings of the public debt were felt to be of unstable value.[7]

When the chairman of the Board of Governors of the Federal Reserve System ignores the distinction between money value and real value

5. *Ibid.*
6. *Ibid.*, p. 224.
7. *Federal Reserve Bulletin* (November, 1948), p. 1343.

there is a basis for misgivings with respect to the policy he defends. That the support policy caused no more serious trouble than it did was partly because of our deflationary bias and partly because the inflationary nature of the support program was less widely understood than will probably be the case in the future. As these facts come to be more widely understood and become available to the public through all sorts of private newsletters, news magazines, trade journals, and other "dope sheets," government officials may then find that this repeated *ignoratio elenchi* no longer has the desired influence on an inflation-minded public.

The President's Council of Economic Advisers, supporting Treasury policy, seems to have taken little if any cognizance of the possibilities and implications of a change in public insights and anticipations. Their uncompromising position is clearly stated in the following testimony by Mr. Clark before the Douglas Committee:

> MR. CLARK: . . . We sometimes are amused to find that people who were scared to death at the prospect of $50,000,000,000 debt now seem to think that a $250,000,000,000 debt is a gentle domesticated animal.
>
> It is not at all. It has been handled so prudently that it has been sleeping. But we think within it are the germs of disaster if it is not handled very prudently, and for that reason we have given first place to the requirements of debt management policy. With respect to that policy, we have been in some conflict with the Federal Reserve Board and in complete sympathy with the Treasury because we have felt that the only successful debt management policy is one which works by itself and where the positive action that is contemplated within it does not have to be called into play. The confidence that it will be called into play and that it will be effective will remove the need to use it. The public acting with the knowledge will not create the problem—
>
> SENATOR DOUGLAS: . . . You mean there would be a danger of panic selling of government securities?
>
> MR. CLARK: . . . Yes, sir; if the public became alarmed about the value of government bonds. We think an essential feature of a successful debt management policy is that the public have absolute confidence that the government bonds are going to be supported at a point which they know about and understand, and the only point that we think you can use is par.[8]

One can fully agree with Mr. Clark's inference that the support program will be successful only "where the positive action that is contemplated within it does not have to be called into play." It is perfectly true that a guaranty to buy bonds at par will effectively prevent bondholders from dumping securities for fear of *money* losses and that "the confidence that it will be called into play and that it will be effective will remove the need to use it" in that connection. But the

8. *Hearings, op. cit.*, pp. 534–35.

program does not guarantee against *real* losses in purchasing power. In fact it actually *exposes* the bondholder to such losses by opening the floodgates of the nation's largest pool of potential purchasing power. If inflationary anticipations are strong at such a time, or even if the chief incentive to shifting is merely high rates of return on private investment, there will be every incentive to monetize the government securities, and no brake upon it whatever. If such a movement gains any momentum through inflationary anticipations and improved public understanding of the nature of the financial process involved, then a rigid pegging of the bond market will become untenable. Where only a few people expect inflation, as in the past, they can protect themselves by getting out of bonds and into goods or equities. But as the movement spreads the situation changes. Efforts at individual self-defense become merely mass suicide.

It should be clear then that the Reserve banks can continue their offer to cash bonds at par only if the offer is not too widely accepted. Once a really large-scale movement to monetize bonds gets under way it would soon become cumulative. At the beginning of such a movement, there is not even the smallest barrier to hold the avalanche back. The support program guarantees that the decision to monetize will involve no direct penalty. It is an open invitation to inflation and in an informed economy *the very existence of the invitation will encourage its acceptance in an atmosphere of inflationary anticipations.* A moment's reflection shows that this is precisely the opposite of Mr. Clark's case. With an informed, inflation-minded public, instead of a situation where "the confidence that (the support program) will be called into play . . . will remove the need to use it," we reach a situation where "the confidence that it will be called into play" will actually *create* the need to use it.

A Flexible Interest Policy

There is real danger then that in a strongly inflationary atmosphere a rigid support program might precipitate the very situation which it seeks to prevent. If the authorities see in advance that such a danger is involved in the rigid support program, there is still the possibility of a solution which involves neither breach of contract nor authoritarian controls. The Reserve authorities could lower their support price, thereby imposing an immediate penalty on the monetization of bonds. It has been the wide consensus of economists that this should have been done much sooner and to a far greater extent than actually occurred in the period following World War II. Such a change in policy was repeatedly urged by many banks and insurance com-

panies.[9] There is abundant evidence in the hearings of the Douglas Committee that such a change in Federal Reserve policy was delayed and minimized only because of the Treasury's influence.[10] It is now encouraging that the Douglas Committee in its report recommended a joint resolution by Congress stating that,

> It is the will of Congress that the primary power and responsibility for regulating the supply, availability, and cost of credit in general shall be vested in the duly constituted authorities of the Federal Reserve System, and that Treasury actions relative to money, credit, and transactions in the Federal debt shall be made consistent with the policies of the Federal Reserve.[11]

In any case, one may agree that a flexible bond price policy would have been desirable and effective in the inflation period following World War II without necessarily agreeing that it would be likely to prove equally effective in the period following the present military financing. In the recent postwar period much of the monetization of bonds occurred not because of any fear that inflation would wipe out the real value of government bonds, but because the growing demand for private loans and the high rates of return on such loans made the shift profitable in terms of current earnings. The rigid support program not only enabled investors to make the shift without penalty but, by holding down the rate of return on government bonds, actually tended to drive investors to monetize their bonds and to seek higher returns elsewhere. In such a situation where differential interest rates are the primary reason for the shift, such a shift may be minimized by a flexible support policy which puts an immediate penalty on bond sales in the form of a capital loss and which makes new refunding issues of the Treasury more attractive through increased rates of return. The decline in bond prices and the rise in the interest rate will, of course, involve a paper loss, but this can be avoided by holding the securities to maturity. The prospect of the paper loss might be disturbing to bank examiners but it does not seem to have dampened the enthusiasm of banks and insurance companies for a higher interest rate. Professor Samuelson has shown how the balance is likely to be struck in the banks' favor when the rate of interest rises.[12] According

9. The Economic Letter of the National City Bank and materials circulated by the Equitable Life Assurance Society of the United States are examples of the efforts which these groups made to influence public opinion.

10. *Ibid.* See especially the testimony of Marriner S. Eccles and Allan Sproul.

11. *Report of the Subcommittee on Monetary, Credit and Fiscal Policies of the Joint Committee on the Economic Report, Congress of the United States* (81st Congress, Second Session), p. 2.

12. Paul A. Samuelson, "The Effect of Interest Rate Increases on the Banking System," *American Economic Review* (March, 1945).

to another competent estimate a 1 per cent rise in the rate of interest would afford sufficient increases in bank earnings to wipe out all capital losses in three or four years.[13]

Where the shift from government bonds to private loans is on a comparatively small scale, and perhaps motivated chiefly by artificially low rates on the public debt, such monetization might be checked by relatively minor changes in the Federal Reserve support price. Such a change would almost surely have the support of the majority of informed persons and would obviously have anti-inflationary effects. The change would not seem radical nor revolutionary and is well within the realm of practical and political possibility. But what about the case of a movement to monetize bonds which is motivated not merely by efforts of financial institutions to improve their current earnings position, but by a widespread fear of substantial inflation? What if all holders of the huge public debt, dominated by inflation bias and remembering the default on the public debt following World War II, decide to try to beat the game? Assume that they expect nothing worse than another repudiation of, say, thirty cents on the dollar. How high will interest rates have to go to stop efforts to monetize the public debt in a nation living under an inflationary tradition of at least ten years standing and holding a volume of government debt securities perhaps substantially greater than the holdings of 1945?[14] These questions are raised here only to indicate what the order of magnitude of the problem could be. That there is a very definite limit to such flexibility will be pointed out in the next section.

The Problem of Non-marketable Savings Bonds

So far the discussion has been concerned only with marketable government securities. Very little more need be said to fit non-marketable savings bonds into the picture. These are demand obligations in every sense. The individual holder is free to cash them in at any time regardless of whether the Reserve banks are supporting bond prices.

13. Unpublished study by Professor Arthur R. Upgren, University of Minnesota, formerly vice-president in charge of research at the Federal Reserve Bank of Minneapolis.

14. It may be worth-while to note that an inflationary movement might well be started or stimulated by the mere existence of the unusually large liquid asset holdings represented by the bonds. Experience following World War II showed that although families may not have planned to liquidate their war bonds for consumption purposes the very ownership of such bonds usually led them to devote a larger proportion of current income to consumption than they would have done otherwise. Thus the very existence of the large bond holdings might cause an inflationary upward movement of the consumption function. For an excellent discussion of this problem and some of the psychological factors involved see Michael Sapir, "Review of Economic Forecasts for the Transition Period," in Volume XI, National Bureau of Economic Research, *Studies in Income and Wealth*.

Therefore, almost everything that has been said about the role of anticipations in regard to the monetization of the marketable debt applies also to the non-marketable debt. If the ball starts rolling it can be stopped directly only by breach of contract between Treasury and bondholder, or indirectly by absolute government restrictions with respect to the buying and selling of goods and services, i.e., general direct controls. If the public seeks to cash savings bonds and the Treasury has no surplus there is no choice but to refund through the banks and probably with the help of the Federal Reserve. Thus the effect of the movement is to increase bank deposits in the hands of the public, and, if the Federal Reserve enters the picture, bank reserves and the reserve ratio as well.

There is another aspect of the savings bond holdings which makes them sensitive to the interest rate on the marketable debt and which in fact puts a very definite limit on the extent to which the marketable debt can be permitted to decline in price. The maturity value of savings bonds represents a maximum eventual return, while the contract assures certain minimum values at any time the holder wishes to demand cash. It should be clear, then, that at some point in the decline of the price of marketable bonds it will become profitable for holders of savings bonds to cash their bonds and to use the funds so procured to purchase the marketable bonds. The savings bond holder cannot afford to hold his bond to maturity if it is possible to cash that bond and spend less than its redemption value to buy a marketable bond with the same maturity date and value. Such a movement would, of course, force the Treasury to resort to bank borrowing in order to cash the savings bonds. In this unfortunate manner the withdrawal of price support from the marketable debt might more or less automatically bring about the very debt monetization which it was designed to prevent. This relationship points out a definite limit to the effectiveness of a flexible interest policy, particularly in the face of strong inflationary bias.

Efficacy of Increased Reserve Ratios

Prophets of doom have sometimes foreseen economic disaster where none ever materialized simply because their prophecies assumed the continuation of a given institutional structure. But institutions, particularly those subject to legislative change, can be modified, and disasters which might otherwise occur may be avoided. Is it possible, then, that bold changes in the institutional structure of banking might forestall or prevent much of the danger of debt monetization

in the face of a wave of inflationary anticipations? The answer is that, while such changes could prevent multiple expansion of deposits on the basis of reserves acquired through sale of bonds to the Reserve banks, they would be largely ineffective with respect to a large-scale public effort to monetize bonds, particularly if a bond support program is in effect. The type of institutional change which has been recommended as an inflation remedy and as a relatively painless (from a Treasury viewpoint) substitute for abandonment of the support program is the secondary reserve, or perhaps simply an increase in ordinary legal reserves. Consider either of these devices in its most extreme form, i.e., a 100 per cent reserve. If the public sells bonds to the banks, or if it dumps savings bonds which require the Treasury to sell bonds to the banks, 100 per cent secondary reserves which banks must hold in the form of bonds will in no way limit the movement to monetize. With every deposit slip for one dollar which the public receives the banks simply add the necessary one dollar to their bond portfolios. Even if the banks are required to maintain a 100 per cent reserve in the form of deposits at the Reserve banks, the amount of deposits which they can make available to the public in exchange for bonds will be limited only by the amount of such bonds which they can in turn sell to the Reserve banks. Such an institutional change would have a very important restrictive effect by preventing multiple expansion of deposits. But it would not prevent direct monetization of the public debt, the whole of which could still be exchanged for cash at any time.

Direct Controls: The Last Resort

In an article written in 1944, which promises to remain timely reading for a long time to come, Henry Simons said that, "If we won't pay taxes to stop inflation we must at least pay interest!"[15] To this one might add, "or accept direct controls." If really severe inflation is the alternative there can be little doubt that direct controls will be retained or extended on a broad scale. This appears to be the general type of development which Professor Schumpeter feared.

In the article referred to above, Henry Simons made the following statement "The Community is now almost persuaded, on Treasury authority, that it can, with the same dollars, buy ammunition to make things hot now for Germans and refrigerators to keep things cool later on at home. Economists are less credulous."[16] Under what circum-

15. Henry C. Simons, "On Debt Policy," *Journal of Political Economy* (December, 1944), p. 356.

16. *Ibid.*, p. 356.

stances can the same dollars spent on war goods be used to buy peacetime goods in the postwar period? It certainly cannot be done in a postwar situation of full employment. As long as there is full employment the additional purchasing power created by monetization of war bonds means, not more goods, but merely more expensive goods. In short, war savings can be enjoyed without inflation only if there are idle resources which these savings can put to work.

In the forties, with a long tradition of deflation, the prospect of a postwar cushion of spending power seemed wholly salutary. But in another postwar period, with an equally powerful tradition of inflation, a vast potential pool of purchasing power may be recognized for the danger which it will truly represent in a situation of high employment. And it is the kind of danger which tends to bring about its own realization as soon as it is recognized. Thus, if the nation should come to the end of the present military finance period with a substantially larger volume of government securities and with a bias in the direction of inflation the government may very well be faced with the choice of runaway inflation on the one hand or continued direct controls on the other. Neither prospect would be a pleasant one. If the inflationary anticipations of the nation are sufficiently strong it is conceivable that direct controls on the spending of war savings would have to be continued until there was a reasonable prospect that the release of that great flow of new purchasing power could be matched by something like a corresponding increase in output, i.e., until unemployed productive resources became available. It is true, of course, that the additional purchasing power represented by war savings might be released gradually over a period of time as increasing output consequent upon technological progress made additional goods available. But in either case the basic problem is the same. The increased purchasing power cannot be made freely available, according to contract, unless there is something available for it to buy. Otherwise the price level will simply keep equating the fund of purchasing power to the available goods, regardless of the number of dollars in that fund. Unfortunately, this is a case where the patient is just as sick as he feels. Where purchasing power is available the fear of inflation is enough to bring about its realization. At this point it may be well to recall an earlier statement made by Henry Simons in a slightly different connection: "Injection of money, within limits, is like putting fuel in the furnace; borrowing, like accumulating dynamite in the basement, with the explosion risk growing as the pile accumulates."[17]

17. Henry C. Simons, "Hansen on Fiscal Policy," *Journal of Political Economy* (April, 1942), p. 174.

THE PROMOTING AND FINANCING OF TRANSCONTINENTAL GAS PIPE LINE CORPORATION*

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UNSUCCESSFUL EFFORTS TO OBTAIN THE "INCH LINES"

AFTER WORLD WAR II the future of the "Inch Lines," built by the government to transport petroleum during the war emergency, was uncertain. Just how to fit these soldiers into a peacetime economy was unknown. Temporarily, the pipe lines were leased to the Tennessee Gas Transmission Company during the coal strike emergency in 1946. While politicians and the oil and gas industry debated the future of the largest "war baby," the only realistic route for a visionary promoter was to assume that sooner or later the government would dispose of these lines. Thus, long before any definite steps were taken by the government, numerous promoters began planning and making contacts.

One of these early planners—who, unlike most of the others, was later able to put his plan into action—was Mr. Claude A. Williams. Mr. Williams, destined to become the president of Transcontinental Gas Pipe Line Corporation, was then an attorney in Austin, Texas. He had formerly been a district attorney in the big East Texas oil field and assistant secretary of state in Texas. A friend of his was Mr. Rogers Lacy. Mr. Lacy, now deceased, had a keen business knowledge of the natural gas industry, controlled huge natural gas reserves, and had a substantial amount of capital. In February, 1946, these two men organized Trans-Continental Gas Pipe Line Company, taking the entire stock of the new organization.

Early in 1946 the young company offered to purchase the "Inch Lines" and submitted a bid of $40,000,000 to the War Assets Ad-

* The opinions expressed herein are those of the authors and do not purport to represent the views of the Securities and Exchange Commission or any other department or agency of the Federal Government.

ministration, the disposal agency for surplus government property.[1] Applying to the Federal Power Commission for a certificate of public convenience and necessity, Trans-Continental Gas Pipe Line Company revealed its intention to convert the pipe lines, if it gained them, to carry natural gas to Pennsylvania, New Jersey, and New York. The conversion cost, the company estimated, would involve the outlay of another $40,000,000.[2]

While negotiations were pending, the government was trying to reach a definite decision as to the future use and ownership of the "Inch Lines." The War Assets Administration was attempting to decide whether public policy would best be served by disposing of these war emergency pipelines to oil carriers or to natural gas carriers. For a while the WAA seemed favorably impressed by an offer from another new company which proposed to use one of the lines as a gas carrier and the other line as an oil carrier. Fortunately for Trans-Continental Gas Pipe Line Company, the rival company was unsuccessful in spite of its talents, which included Mr. C. R. Holmes, a former member of the New York Public Service Commission, and Mr. O. S. Cox, a former assistant solicitor general of the United States.[3]

Later the government took its first definite step. The pipelines were advertised for sale in thirty-four newspapers and five oil trade magazines. Bidding opened on June 8, 1946; by the closing date, July 31, sixteen bids had been submitted. When the government opened the bids, it found that not a single major oil producer or refiner was represented among the bidders.[4] The bid of Trans-Continental Gas Pipe Line Company was $85,000,000 cash, with an alternative arrangement in the event that the government would require the "Little Inch" to be continued as an agency for the transport of petroleum.

This was the highest bid.[5] Trans-Continental, sometimes referred to as "Transco," was apparently on the road to success. Such hope was short-lived. War Assets Administrator Littlejohn rejected all bids, ostensibly because they were "too low."[6]

This was the nearest that Transco ever came to reaching the first objective for which it was organized. In 1947 the government decided

1. "Government Utility Happenings," *Public Utilities Fortnightly*, Vol. 37 (April 25, 1946), pp. 556–57.

2. *Ibid.*

3. *Ibid.*

4. John J. Hassett, "Those Troublesome 'Inch' Pipe Lines," *Public Utilities Fortnightly*, Vol. 38 (December 19, 1946), pp. 797–809.

5. C. A. Williams, "The Story of Transcontinental Gas Pipe Line Corporation," *The Oil and Gas Journal* (May 4, 1950).

6. Hasset, *op. cit.*, p. 799.

that the "Inch Lines" could not fit into the peacetime economy of the petroleum industry as oil carriers and held a second auction to dispose of the lines as natural gas carriers. At the second bidding the war emergency pipelines were purchased by another new company, Texas Eastern Transmission Corporation, for $143,127,000—just $103,127,000 more than Transco had originally offered the government.[7]

The Organization of a New Transmission Line Project

With the "Inch Lines" sold, most of the unsuccessful promoters fell back into obscurity. Unlike the other bidders, young Trans-Continental Gas Pipe Line Company had not put all of its eggs in the basket that was snatched by Texas Eastern. While negotiations were pending with the War Assets Administration, Transco had applied to the Federal Power Commission for permission to construct a 26-inch transmission line from Corpus Christi, Texas, to Linden, New Jersey, at an estimated cost of $80,000,000, in the event of failure to obtain the government pipelines.[8]

Mr. Williams had also been strengthening the young organization by obtaining some additional stockholders—stockholders who had something other than money to offer the company. Most of them were natural gas producers operating in the Texas and Louisiana gas fields. The big problem of obtaining a twenty-year gas reserve was thereby simplified. The Fish Engineering Corporation, whose president, Ray C. Fish, had built the Tennessee Gas Transmission System, also became a stockholder. Certain of the stockholders, however, became discouraged by the two unsuccessful bids for the government lines and sold their stock to Williams and Lacy.[9] An amount of $72,500 was charged off against capital surplus as an expenditure in connection with the unsuccessful bidding and the new group of stockholders began planning in earnest to build a new pipeline—the longest pipeline in the world.

To accomplish such a task would require: outside financing; more gas reserves; long-term sale contracts; huge amounts of scarce large-diameter steel pipe; securing of 2,000 miles of right-of-way; construction of the transmission line; and a certificate of convenience and necessity from the Federal Power Commission.

The groundwork for obtaining outside financing was laid by increasing the capitalization and selling additional shares of common

7. Texas Eastern Transmission Corporation, *Prospectus* (November 10, 1947), p. 3.
8. Williams, *op. cit.*
9. Transcontinental Gas Pipe Line Corporation, *Prospectus* (December 2, 1948), p. 27.

stock to existing stockholders and to White, Weld and Company; Stone and Webster, Incorporated; American Securities Corporation; Blyth and Company, Inc.; and the Newmont Mining Corporation.[10]

The difficulty of obtaining purchase and sale contracts was expressed by Mr. Williams when he said, "Owners of gas were slow to commit reserves to a new company. Distributors of gas wondered about signing up with a company whose line was still on paper."[11] Finally, seventeen supply contracts were signed. They permit Transcontinental to take gas from thirty-four different fields extending along 600 miles of the Texas-Louisiana Gulf Coast and deliver it to northeastern distributors. Long before Transco was organized these distributors were serving a population of approximately 9,250,000 and selling over 160,000,000 MCF's a year of manufactured gas.[12] Both the purchase and sale contracts continue for a period of twenty years from the date of commencement of deliveries.

From the viewpoint of load-factor, an important sales contract was made with the Sun Oil Company, whereby Sun Oil agreed to take natural gas (up to a maximum of 68 million cubic feet per day) at their Marcus Hook, Pennsylvania, refinery on an interruptible basis.

Transco also made important contracts with Kaiser Company, Inc., for huge quantities of steel plate and with Consolidated Western Steel Corporation for the fabrication of a part of such plate into 26-inch and 30-inch pipe. To assist the financing of the young company's pipe purchases Kaiser and Consolidated Western subscribed for and paid cash for the unit offering[13] of interim notes and common stock at the regular offering price of $52.50 per unit. In effect then, Transco paid for their pipe with notes and stock.

A contract for the design, engineering, and construction of the gas transmission system was awarded to the Fish Engineering Corporation—which at the time owned 4.5 per cent of the common stock of Transco. Because of the necessity of establishing complete and separate records of all phases of the construction project, Fish Engineering Corporation decided to handle the project through a separate corporation. Fish Constructors, Inc., therefore, was organized. Its

10. *Ibid.*, p. 3.

11. Williams, *op. cit.*, p. 1.

12. The original distributors were: Consolidated Edison Company, Public Service Electric and Gas Co., Brooklyn Union Gas Co., Philadelphia Electric Company, Long Island Lighting System, Elizabethtown Consolidated Gas Co., Kings County Lighting Co., Brooklyn Borough Gas Co., New York and Richmond Gas Co. When the Company increased its capacity Northeastern Gas Transmission Co. and South Jersey Gas Co. became customers.

13. For description of offering see *infra*.

entire set of records becomes the property of Transcontinental Gas Pipe Line Corporation when construction is completed.[14]

The next important objective of young Transco was to obtain a certificate of public convenience and necessity from the Federal Power Commission. Without the certificate, the new organization could not go far beyond the "idea stage." The difficulties and the resistance that a new enterprise may encounter in the promotional stage are well illustrated in the hearings before the Federal Power Commission, which lasted nine months, required 200 witnesses, and filled 9,000 pages, at a cost of approximately $500,000.[15] Active interveners who opposed the granting of the certificate included: fuel oil trade associations; coal associations; United Mine Workers; unions of railroad conductors, engineers, firemen, and switchmen; maritime associations; railroad companies, transmission companies; and manufactured gas companies.[16]

Transco prevailed. It obtained the certificate even though it had no firm commitments concerning the proposed financing. The most striking point made in the entire proceeding, and the one which shows the sound economic basis of the new company, was Transco's exhibit which showed that the proposed line would save the distributing utilities approximately $35,173,000 annually in operating cost.[17]

With the certificate of convenience and necessity in hand, the young company's future looked bright. With huge "Texas oil money" already in the company, with three prominent Wall Street investment bankers in the organization, with the security market in an opportune phase, there was little question that money could be obtained. The question was in what manner and how cheaply could it be obtained.

The Financial Plan

In the early history of Transcontinental, the first important capitalization was 750,000 share of common stock with a par value of 50 cents per share. The amount received by the company for the stock was $500,000 or 66⅔ cents per share in cash, over and above the $72,500 charged off as bidding expenses.[18] Such a simple capitalization is well suited for a corporation in the promotional stage. It permits flexi-

14. Ray C. Fish, "The Story of the Builders of Transcontinental," *The Oil and Gas Journal* (May 4, 1950).

15. *Business Week* (May 28, 1949), p. 25, and correspondence with C. A. Williams.

16. *In the matter of Trans-Continental Gas Pipe Line Company, Inc.*, 7 Federal Power Commission Reports, 24 (May 29) and 139 (Nov. 17, 1948) Dockets G 704 and G 1143.

17. *Ibid.*, p. 43.

18. Transcontinental Gas Pipe Line Corp., *Prospectus* (1948), p. 28.

bility, contains no fixed charges, and yet provides the necessary capital to make the initial contracts and contacts.

After receiving the Federal Power Commission's certificate of public convenience and necessity, the company reorganized as Transcontinental Gas Pipe Line Corporation, a Delaware corporation, and Trans-Continental Gas Pipe Line Company, a Texas corporation, was dissolved. Upon acquisition of the assets by the Delaware corporation, shares of common stock of the Delaware corporation were issued to the stockholders of the Texas corporation on a share for share basis.[19] The principal stockholders of the company at this time, November 29, 1948, were as follows:[20]

Stockholder	Percentage of Total Capitalization
Estate of R. Lacy	19.1
Stone & Webster, Inc.	17.2
White, Weld & Co.	17.2
C. A. Williams	12.0
	65.5

Other large stockholders, holding 6 per cent and less, were gas producers and investment bankers. The balance sheet, as of November 24, 1948, contained only the following items in the net worth section:[21]

Capital stock, par 50 cents per share; authorized 4,000,000; issued and outstanding 750,000 shares	$375,000
Premium on sale of common stock	125,000
Total	$500,000

The next big step was to draw in detail the financial plan that would be used in transforming the company from a promotional organization into an operating transmission company. At the hearing of the Federal Power Commission in May, 1948, President Williams stated that he had entered into no firm commitments for financing the company; he proposed a capitalization consisting of bonds and bank loans equalling 78 per cent, preferred stock 12 per cent, and common stock 10 per cent.

Company witnesses testified that responsible financial institutions had indicated that twenty-year serial bonds could be issued at a cost of $3\frac{1}{2}$ per cent to $3\frac{3}{4}$ per cent and that a ten-year bank loan could be obtained at approximately 3 per cent. Preferred stock, the company

19. *Ibid.*, p. 27.
20. *Ibid.*, p. 28.
21. *Ibid.*, p. 55.

believed, could be issued at a cost slightly in excess of 5 per cent—"depending upon market conditions at the time of financing."

The Power Commission, consisting of Smith, Draper, Olds, and Wimberly, agreed that "the proposed plan of financing is economically feasible,"[22] but required the company to submit to the FPC for consideration the ultimate plan of financing the proposed project. The financial plan as it was finally evolved by the company, its controlling stockholders, and the investment bankers was as follows:[23]

1. Offer to holders of the outstanding common stock (750,000 shares) the right to subscribe to 2,250,000 shares of common stock at $10 per share and at the rate of three shares of common for each share of the outstanding common held. Stockholder's subscription warrants to be issued. Warrants to be transferable, with certain limitations, and to expire December 6, 1948.
2. Sell to underwriters:
   a) $22,500,000 principal amount of 6 per cent interim notes due May 1, 1951. Notes to be payable at maturity by delivery of $3.00 Preferred Stock at the rate of one share of stock for each $50 principal amount of notes.
   b) 450,000 shares of Common Stock to be offered in units with the above notes at the rate of one share per $50 principal amount of notes.
   c) Give underwriters an option to purchase $4,000,000 principal amount of 6 per cent notes and 80,000 shares of common stock which may be offered in additional units.
3. Sell by private placement $143,000,000 principal amount of first mortgage pipe line bonds.
4. Purchase from present stockholders 265,000 shares of common stock at 66⅔ cents per share. Issue to stockholders warrants for 265,000 shares exercisable at $10 per share. The reacquired shares to be offered in the above units.

Common stock.—The common stock, listed under (1) above, was all subscribed by the company's stockholders. With such a large "private placement" of the common stock, it was felt that some control of the market was necessary to successfully market the units. Therefore, the company made an agreement with all of the common stockholders, except two, whereby they agreed not to sell any shares of the common stock other than the shares to be reacquired by the company. The two stockholders who did not sign the agreement indicated to Transco that they had no intention of distributing their stock to the public during financing.

The warrants issued to these stockholders contained a provision which restricted the holders from selling any of the old common stock prior to December 1, 1949, or any of the new common obtained by

22. 7 *FPC Reports* 37–38 (1948).

23. Transcontinental Gas Pipe Line Corp., *Prospectus* (1948), p. 6.

the exercise of the warrants prior to July 1, 1949. The effective date of the prospectus offering the units was December 2, 1948.

The units.—The sale to the underwriters was likewise successful, but not without difficulty. On November 9, 1948, Transcontinental had proposed at an FPC hearing to issue 5 per cent preferred stock, together with one share of common stock as a unit at a price of $100.67. The unit was also to contain an option to purchase an additional share of common stock at $10.[24] While Transco and its investment bankers were preparing the offering the market for new security issues continued receptive. A "red herring" prospectus was circulated which carried a rate of only 4¾ per cent on the preferred stock. Before the offering date, December 2, 1948, there was a drop in the security market and the underwriters decided that it would be necessary to increase the rate to 6 per cent and double the "bonus" of common stock. The important factor of timing had been missed by just a few days. The results: (1) Transco's annual preferred dividend requirement was increased $331,250, and (2) 275,000 shares of common stock had to be issued to "put away" the units.

This issue of preferred stock also encountered legal difficulty. Transcontinental estimated that it would take over two years to construct the transmission line and begin operating at a profit; until 1951 the company would have neither profits nor an earned surplus out of which to pay preferred dividends. The laws of Delaware, the state of incorporation, provide that directors "shall have power to declare and pay dividends . . . out of net assets in excess of capital . . . or net profits."[25] The difficulty was resolved by issuing interim notes, due May 1, 1951, and payable at maturity by delivery of preferred stock.

On December 2, 1948, the units were offered to the public. In final form the units consisted of 6 per cent interim notes of $50 principal amount and one share of common stock. Of the sale price to the public of $52.50 per unit, $49.50 went to the Transcontinental Gas Pipe Line Corporation, or in total amounts:[26]

Price to the public	$25,725,000	$52.50
Underwriting discount	1,470,000	3.00
Proceeds to the company	$24,255,000	$49.50

White, Weld and Company and Stone and Webster Securities Corporation achieved widespread distribution of the units by organizing

24. *In re Trans-Continental Gas Pipe Line Co., Inc.;* Supplemental Finding and Amendatory order, *7 FPC Reports 143* (1948).

25. Delaware General Corporation Laws, Section 34.

26. *Prospectus* (1948), p. 1.

a purchase group which contained 104 principal underwriters. Only a small part of the issue was placed with the insurance companies; on December 31, 1949, they held only 4.3 per cent of the interim notes.[27] Not only did the underwriters put away the 450,000 units which they purchased from Transco, but they also exercised their option as to 40,000 units. The underwriters then waived their option to purchase the remaining 40,000 units so that Transco could sell the units to Kaiser Company, Inc., and Consolidated Western Steel Corporation.

Funded debt.—The financing of the $143,000,000 principal amount of First Mortgage Pipe Line Bonds, 3⅝ per cent Series due 1968, was readily achieved, with one insurance company taking almost one-half of the entire issue. In comparison with the underwriting discount of the units, as shown above, Transcontinental paid White, Weld and Company, and Stone and Webster Securities Corporation only $165,000 for their services in connection with the private placement of the bonds with eighteen institutional investors. The official closing of the bond issue was held in the Trust Department offices of the Chase National Bank in New York City on June 3, 1949.

The eighteen insurance companies which purchased the bonds together with their participations are as follows:[28]

Name	Principal Amount Purchased	Percentage of Issue
Metropolitan Life Insurance Company	$ 70,000,000	49.0
New York Life Insurance Company	25,000,000	15.7
Mutual Life Insurance Company	15,000,000	10.5
Aetna Life Insurance Company	5,000,000	3.5
Mutual Benefit Life Insurance Co.	5,000,000	3.5
Northwestern Mutual Life Insurance Co.	5,000,000	3.5
Sun Life Assurance Co. of Canada	4,000,000	2.8
Mass. Mutual Life Insurance Company	3,000,000	2.1
Penn Mutual Life Insurance Company	2,250,000	1.7
Connecticut Mutual Life Insurance Company	2,000,000	1.4
Provident Mutual Life of Philadelphia	1,750,000	1.2
Home Life Insurance Company	1,000,000	.7
Phoenix Mutual Life Insurance Company	1,000,000	.7
Great-West Life Assurance Company	750,000	.5
Lincoln National Life Insurance Co.	750,000	.5
Aid Association for Lutherans	500,000	.3
Bankers Life Insurance Co. of Nebraska	500,000	.3
Modern Woodmen of America	500,000	.3
Total	$143,000,000	100.0

Warrants.—Within a year the warrants to buy 265,000 shares of common stock at $10 per share had been exercised.

By the end of 1949 the original financial plan was completed. Thus,

27. *Corporate Holding of Insurance Companies, 1950* (New York: United States Statistical Associates, Inc., 1950).

28. *Prospectus* (1948), p. 30.

the first *Annual Report* (1949) of Transcontinental Gas Pipe Line Corporation showed the following items in the capitalization section:

	Dec. 31, 1949
CAPITAL STOCK AND SURPLUS:	
Common Stock, par value 50¢ per share; 4,000,000 shares authorized; 3,530,000 issued and outstanding	$ 1,765,000
Premium on Common Stock	29,008,333
Cumulative Preferred Stock, without par value; 640,000 shares authorized of which 530,000 shares have been designated as $3 Series; no shares issued or outstanding	.....
Earned Surplus	630,368
Total capital stock and surplus	31,403,701
LONG-TERM DEBT:	
First Mortgage Bonds, 3⅝%, 1968	143,000,000
6% Interim Notes, due May 1, 1951	26,500,000
	169,500,000
Total	$200,903,701

FINANCING FOR EXPANSION

On April 28, 1950, the Federal Power Commission approved Transcontinental's application for an increase in its delivery capacity from 340,000 MCF to 505,000 MCF per day.[29] The cost of the additional facilities required to deliver this increased amount of gas was estimated at $49,000,000. As Transco's officials had been thinking of expanding for almost two years, the engineering plan was well conceived. By substituting 362 miles of 30-inch pipe for 26-inch pipe and building 12 additional compressor stations, the capacity could be increased to 505,000 MCF per day. Contracts with the steel suppliers and pipe fabricators provided for the possible change in the size of pipe. The FPC found that the natural gas reserves of the company were adequate for the increased capacity. Two new customers, Northeastern Gas Transmission Company and South Jersey Gas Company, contracted to take the additional gas.

To finance the expansion Transcontinental proposed to obtain a temporary bank loan of $10,000,000; issue $32,000,000 of first mortgage bonds; and apply the $2,650,000 received from the stockholders through the exercise of the 265,000 warrants. Upon completion of this plan, as it was proposed at the FPC hearing, the capitalization would be as follows:

First mortgage bonds	$175,000,000	72.2
Bank loan	10,000,000	4.2
	185,000,000	76.4
6 per cent interim notes	26,500,000	10.9
Common stock equity	30,773,000	12.7
Total	$243,273,000	100.0

29. *In the Matter of Transcontinental Gas Pipe Line Corporation*, Federal Power Commission, Opinion No. 191 (April 28, 1950).

In the FPC's opinion this plan of financing resulted in too much debt and too little common equity.[30] Transco pointed out, however, that after the first year of operations the condition would be remedied by a reduction in the debt ratio to approximately 71 per cent and by an increase in common stock equity to approximately 18 per cent. Impressed with the argument, the Commission granted the application subject to the following condition:

> In order to make sure that an improvement in the capital structure will take place, we will attach a condition to the certificate to the effect that no dividends on common stock shall be paid as long as the debt ratio exceeds 75% or the common equity is less than 15% of the total capital, or if common equity would be reduced below 15% of the total capital by the payment of the dividend.[31]

With the FPC conditional approval Transcontinental was ready to proceed with the financing of the new project. It had been careful to provide in the original bond indenture that additional bonds could be issued under the mortgage securing the $143,000,000 issue. The total principal amount of bonds which can be issued under this open end covenant was limited to $350,000,000 so long as any bonds of the 3⅝ per cent Series due 1968 are outstanding.[32] The way, therefore, was left open for the additional financing. White, Weld and Company and Stone and Webster Securities Corporation on July 26, 1950, placed the additional $32,000,000 of Transco's funded debt—First Mortgage Pipe Line Bonds, 3¼ Series due 1970—with the same group of institutional investors which purchased the original issue of $143,000,000.[33] An agreement with three banks for a loan of up to $10,000,000 was also made.

Refinancing the Notes

In December, 1948, Transcontinental could offer investors only a paper pipeline. The high risk dictated high yields and expensive capital charges. To attract public investors the 6 per cent Interim Notes, due May 1, 1951, were made payable in 6 per cent ($3.00 Series) preferred stock, at a time when the preferred stock of experienced pipelines were selling to yield investors approximately 4 per cent. The demands of the prevailing money market were reluctantly satisfied; yet,

30. The Federal Power Commission has established the following standard: "We have previously held that the long term debt of pipeline companies, such as El Paso, should not exceed 75% and that the common equity should aggregate at least 15% of total capital. In our opinion these minimum standards should be observed by El Paso." *In the Matter of El Paso Natural Gas Company,* Federal Power Commission, Docket No. G-1177 (1950).

31. *In the Matter of Transcontinental Gas Pipe Line Corporation,* Federal Power Commission, Opinion No. 191 (1950).

32. *Prospectus* (1948), p. 7. 33. *The Wall Street Journal* (July 27, 1950), p. 9.

the call feature of the notes left the way open for later refinancing on more favorable terms. Upon completion of the pipeline, the $50 principal amount notes were called for redemption at $52.50; the 530,000 shares of Cumulative Preferred Stock designated as $3.00 Series and reserved for issuance in payment of the notes were eliminated; and 550,000 shares of new series of $2.55 (Stated Value, $50 per share) Cumulative Preferred Stock were offered on March 5, 1951,[34] thereby reducing the preferred dividend requirements $187,500 annually.[35]

Plans for the Future

From its origin near the Mexican border to its terminus in New York City, the $233,000,000 pipeline began in January, 1951, to transport "fuel from the region of the world's greatest natural gas reserves to the world's richest market."[36] In addition, a new wholly owned subsidiary, Transcontinental Building Corporation, has completed construction of a modern office building in Houston, Texas, to serve as the headquarters. The financing and promotion are now completed. Only minor additions, requiring approximately $19,000,000 which will be financed out of cash from operations and bank loans, are now planned. An extension of the line to the New York–Connecticut border and the erection of another compressor station are planned for completion by the end of 1951; a new line is to be constructed across Staten Island to Long Island; southern compressor stations are to be increased by 45,700 horsepower to permit delivery of gas to new markets in Alabama, Georgia, and the Carolinas. Upon completion of these facilities, Transco's gas deliveries to the northeastern seaboard area should approximate 505 million cubic feet per day, the authorized maximum for that area, and 50 million cubic feet daily to distributors in the southern states, as authorized by the Federal Power Commission on January 19, 1951.[37]

Promoters' Profits

In the postwar period much has been said and written about the propriety of promoters' profits. In the transmission industry, the pro-

34. If the $50 principal amount notes had been paid in $3.00 Series preferred stock ($50, Stated Value), 530,000 shares would have been required to satisfy the $26,500,000 obligation. As the notes were called at $52.50, 550,000 shares of $2.55 Series preferred stock (Stated Value, $50 per share) were required, in addition to the funds supplied by the Company.

35. Trancontinental Gas Pipe Line Corporation, *Annual Report, 1950,* p. 18; see also *Prospectus,* dated March 5, 1951.

36. Transcontinental Gas Pipe Line Corporation, *Annual Report, 1950,* p. 2.

37. *In the Matter of Transcontinental Gas Pipe Line Corporation.* Federal Power Commission, Docket No. G-1411; *Annual Report, 1950,* p. 2.

motion of Texas Eastern Transmission Corporation has aroused the most debate.[38] Transcontinental's case has received little attention. Did its promoters receive a "fair profit"?

As noted above, Transco's promoters, which included the firm of White, Weld and Company and Stone and Webster, Inc., paid their investment bankers, White, Weld and Company and Stone and Webster Securities Corporation, $165,000 for their service in connection with the private placement of the $143,000,000 bond issue. Thus, 72.2 per cent of the funds needed to organize the new company were obtained at a cost of *0.11* per cent. The same investment bankers headed a purchase group which obtained $24,255,000 more for Transcontinental through the sale of the units at $52.50. The gross underwriting spread of $3.00 was 6.1 per cent of the net proceeds of $49.50 turned over to the company.[39]

It is in the common stock, of course, where the promoters' profits are expected to be hidden, according to legend. Transco received $66\frac{2}{3}$ cents per share for 750,000 shares of common stock—over and above the $72,500 charged off as expenditures in connection with the unsuccessful efforts to obtain the "Inch Lines." Later, 265,000 of these shares were reacquired by Transcontinental at the same price, $66\frac{2}{3}$ cents per share, leaving a net of 485,000 shares which were issued for $66\frac{2}{3}$ cents per share, or a total of $323,333.

Since the company issued rights to subscribe to 2,525,000 shares of common stock at a price of $10 per share, let us assume that the fair market value of the $66\frac{2}{3}$-cent shares was $10 per share. The paper profit of the founders, therefore, would amount to $4,526,667. The analysis should not stop here. It was these same founders—not the public—who later purchased the 2,525,000 shares at $10 per share. On an averaged basis (485,000 shares at $66\frac{2}{3}$ cents and 2,525,000 shares at $10) the founders paid $8.16 for their shares.

The real "fair market value" of the shares is more difficult to ascertain. During the entire organization period no offer of common stock was ever made to the public, except the 490,000 shares offered in the units. As these units, containing a $50 note and one share of common stock, sold for $52.50 at the time of offering, it is evident that the common stock was considered quite speculative. Six months later, in

38. For the argument that the promoters' profits were unfair and had a harmful effect upon American business, see: John W. Welcker, "Fair Profit," *Harvard Business Review*, Vol. 26, No. 2 (March, 1948), p. 207. For the reply that the profits were reasonable and necessary, see: Joseph Stagg Lawrence, "Profits and Progress," *Harvard Business Review*, Vol. 26, No. 4 (July, 1948), p. 480.

39. An analysis of the several studies of the staff of the Securities and Exchange Commission on *Cost of Securities Flotation* would indicate that the gross underwriting spread was modest despite the fact it was not determined by arms' length bargaining.

July, 1949, when the common stockholders had fulfilled their agreement to keep out of the market during the financing, trading commenced on the over-the-counter market. Since then the market price of the common has ranged from 19¾ to 12⅞ in 1949; 22¾ to 15 in 1950; quoted at approximately 24 April 1, 1951.

Turning to a consideration of the profits of President Williams, who has been given much credit for the building of Transcontinental Gas Pipe Line Corporation,[40] fair dealings are again evident. According to the prospectus, Mr. Williams received a total remuneration of $68,749 for services from February 16, 1946, to October 31, 1948. In addition, he and Mr. Lacy jointly received $50,000 for expenses incurred for investigation, engineering, and legal services in the pre- and post-incorporation periods.

Promoter Williams obtained from the new organization 90,000 shares of common stock at 66⅔ cents per share. As indicated in the discussion of the financial plan, the company reacquired from its stockholders 265,000 of the 750,000 shares outstanding. President Williams' holdings were thereby reduced to 58,200 shares of common stock, representing an investment of $38,801. At $10 per share this investment becomes $582,000, or a paper profit of $543,198. He also received warrants to purchase 301,800 additional shares of common stock at $10 per share—the price set by the investment bankers and the company, and the price at which the 2,525,000 shares were sold.

In conclusion, leaving aside market gains of above $10 a share, a fair estimate of President Williams' total promotional rewards would approximate $650,000. Considering the legal services rendered, the promotional work done, the risks assumed, and the results accomplished, the reward seems reasonable. Largely through the promotional efforts of Mr. Williams, the northeastern gas distributors will save $35,173,000 annually, jobs for hundreds have been created, an attractive investment has been provided for insurance funds, and wasting flare gas[41] has been put to work.

40. "In natural gas circles he [President Williams] is credited with a large measure of the organizational ability and the genius of leadership necessary to bring the project to the stage of reality" ("Transcontinental Gas Pipe Line, Largest Project in Natural Gas History, Is Started," *Texas Oil Journal*, Vol. 15, No. 11 [March, 1949], p. 10).

41. "Considerable of the gas supply for the pipeline system (Transco) will be 'flare gas' which will be put to useful use. Much of such gas is now being dissipated. This new project thus becomes another rung in the ladder of conservation" (*Texas Oil Journal, op. cit.*, p. 12).

UNITED STATES IMPORT FINANCING METHODS*

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THE ECONOMIC CO-OPERATION ADMINISTRATION, in connection with its efforts to promote the exports of the Marshall Plan countries to the United States and thereby lessen their need for dollar aid, engaged a consultant to prepare an analysis of the financing of these exports. The Department of Commerce co-operated in this study through interviews of personnel in its 17 field offices with importers, bankers, warehousemen, foreign-trade zone authorities, factors, and dealers in foreign exchange to ascertain the methods of import trade financing currently utilized and to sample opinion concerning the adequacy of these methods.

The principal results of this survey may be summarized as follows:

1. *The United States as an international finance center.*—Although the dollar is today the world's leading international standard of account and medium of exchange, the American foreign trade financing market lacks the breadth, depth, and flexibility of the London market of pre-World War II days. There is less variety in the institutions engaged, and the instruments employed, in foreign trade financing.

The devices currently employed were held, by the large majority of those interviewed, to be adequate for the financing of routine, standardized transactions. The financing of the novel transaction—the import business requiring medium-term capital, foreign area development, and the extension of American enterprise abroad—was less adequately met.

2. *Dominance of the commercial bank.*—Most of our import financing transactions are handled by commercial banks. The services which these banks render in this connection were widely regarded as satisfactory and their charges, interest and other, as reasonable. Many of these banks have well-staffed foreign trade departments, equipped to render service and advice to foreign traders. Some of those interviewed expressed the opinion that banks could place greater emphasis

* The opinions expressed in this article are those of the author and do not necessarily reflect those of the Economic Co-operation Administration or of the Department of Commerce. It should be noted that the findings of this report are based upon the loan and reserve positions and policies of the banks, as well as foreign trade practice, during July and August, 1950.

upon service by engaging commodity experts and some held that they should go after business more aggressively.

The dominance of the commercial bank in the field of import financing has certain important consequences.

a) The survey indicated that commercial banks were well aware of their responsibility as the guardians of deposits and were unwilling to subject these deposits to excessive risks. This fact, however, places limits upon both the type and duration of the import transactions financed.

The novel, uncertain, "different" import may be held too risky. The import transaction involving credit from sight to six months—the quick turnover deal—is readily financed. The longer-run import relationships, requiring developmental work and demanding medium-length credit, are not generally financed by commercial banks because of liquidity considerations.

b) Few institutions utilizing partner's or shareholder's venture capital are engaged in import financing. We have few counterparts of the old London merchant banker who often financed transactions by taking a partner's share or equity in them. If more institutions utilizing venture capital entered the field, our imports could be increased, we would be better equipped to play our role of international financial leader, and we could do much more developmental work in the field of foreign trade.

c) Traditionally, there has been much opposition in the United States to branch banking and, for this reason, there are a large number of more or less independent banks in this country. This finely atomized structure of our banking system means that there are but few banks equipped to handle foreign financing on an adequately large scale. A number of the bankers interviewed stated that the profits from import financing were small. A larger volume of business—such as would result from greater concentration in banking—would serve to make these transactions more profitable at current rates.

On the other hand, the existence of many banks in the United States competing for foreign trade financing is a guaranty against monopoly and provides assurance of competitive financing rates. The low rates prevailing in this country—and the rates are substantially lower than those found abroad—are due in part to competition between banks.

To return to the problem of financing, the relatively small foreign staffs of those numerous banks incline the officers to rely upon the letter of credit as the principal instrument of import credit. Other instruments might require the banks to have more employees—especially commodity experts—to do the necessary investigational work.

d) The proportion of the banks' total loan business represented by import financing varied from 1 to 30 per cent in the cities studied. Many bankers were reluctant to increase the proportion of their total business devoted to import financing in order to maintain the diversification of portfolio desirable for a commercial bank.

3. *Dominance of the letter of credit.*—The irrevocable letter of credit is well-nigh universally employed in financing imports. This instrument has grown greatly in popularity in recent years and has much to offer foreign traders. It embodies a type of agreement between exporter, importer, and the financing institutions which spells out the conditions under which drafts will be accepted and paid. It affords a high degree of protection to all parties to the transaction. The importer is assured that the goods forwarded meet the contract specifications, the exporter is paid upon shipment, while the bank is assured of the bona fides of a transaction before making payment.

Two other reasons for the popularity of the letter of credit are to be found in recent foreign trade developments. The first is the feeling of uncertainty which has characterized an important segment of this trade. New entrants into the field, new products, rising prices, the long absence from the export market of many Europeans, shortages of working capital in Europe—all have served to drive exporters to insist upon the guaranties afforded by the letter of credit.

Many governments have instituted exchange controls and some of them demand that their exporters have either cash in hand or an irrevocable letter of credit before issuing an export license. They are unwilling to allow their exporters to take the same risks which were common before the war when many shipments were delivered on open account or on time bills payable up to ninety days.

One criticism of the letter of credit which was voiced by several importers stemmed from the many contractual details with which this instrument is burdened today. When a modification is desired in a contract of sale, the letter of credit must be appropriately changed. This adds to the cost of imports and creates additional paper work, already burdensome, in foreign trade.

The heavy reliance placed upon the irrevocable letter of credit as a means of import financing tends to narrow our market for foreign exchange paper and introduces a certain routine rigidity into our foreign trade practices. Its use, together with the dominance of commercial bank financing, prevents us from giving foreign trade the progressive leadership which our present international position justifies.

Costs of financing under the letter of credit are reasonable. The cost of the letter of credit itself varies from one-eighth of 1 per cent to

1 per cent of its face value, with a usual minimum fee of $5. The rates of one-eighth to one-fourth of 1 per cent were the most common in the areas surveyed. The rates of interest on drafts drawn under letters of credit are equally low, ranging from 1½ per cent to 6 per cent per annum, with rates of 1½ per cent to 3 per cent the most commonly mentioned. The rates vary according to the time length of drafts, risk, financial standing of the importer, dollar value, amount of work involved, and the merits of the transaction.

The low rates of interest and charges involved in letter-of-credit financing result from the lowered risk where this device is utilized, competition between banks, and low market rates of interest. Many of the bankers interviewed were of the opinion that the rates were too low in view of rising costs of operation. They felt that import financing was not a sufficiently remunerative part of their operations.

4. *Other conclusions.*—

a) *Open account and factoring:* These procedures are not widely utilized in import financing and are reserved for certain specialties, such as tulip bulb imports from the Netherlands, where exporters have a well-organized association with good credit information.

b) *Consignment and storage financing:* The amount of goods imported on consignment, stored in bonded warehouses or in foreign-trade zones, is relatively small and no special techniques are employed in this financing. Again, the letter of credit is utilized as the basic financial document.

c) *Credit standing vs. merit of transaction:* In general, the credit standing of the importer was a more important factor in decisions to grant or withhold credit than the merit of the transaction itself. In part, this resulted from the preponderance of commercial bank financing and the emphasis placed on credit standing by bank examiners.

CIGARETTES AS CURRENCY

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THE NOTION IS WIDESPREAD that for a long period of time and in a large economic area cigarettes served as currency in Germany after the recent war. Probably the most explicit statement of this belief, which the writer finds erroneous, is the following: "In Britain it [the cigarette] never, even at the height of the American occupation, went so far as to replace the existing metal or paper coinages. In occupied Europe it did."[1] While we examine here only the German case, it is probable that situations similar in many respects existed elsewhere.

In order to understand the role played by cigarettes as money, it is essential to examine the historical background of the problem. Up to the fall of 1946 American cigarettes were not considered either as a general measure of value or as an instrument of exchange.[2] The Reichmark (henceforth RM) was still reasonably stable, black market trading was limited, and the worst period of Germany's economic decline had not yet begun. Although the price of cigarettes was very high, it was fixed by the general laws of supply and demand.[3]

Usually cigarettes were sold for Reichmarks, which at that time could be exchanged by American and British soldiers for pounds or dollars. Consequently, a soldier could sell part of his ration, have all the money he desired for his non-military expenses, and still save his whole paycheck. Large dollar and pound profits were made in many cases.[4]

However, in August of 1946 the Allies took steps to alter the situation. A partial conversion of cigarettes into a money medium came

1. "The Tobacco Standard," *The Economist* (April 12, 1947), p. 526. In this short charmingly written article, a very mischievous doctrine finds its most complete expression.

2. German and other foreign cigarettes also played a role here but it was negligible for two reasons. One was that the American cigarettes have always been regarded as the best and the second that the Americans got a much larger ration than any other group of nationals.

3. The price in September, 1946, was approximately $150 a carton in Berlin; this varied widely.

4. Before the conversion stopped, i.e., in less than two years after the beginning of the occupation, Americans alone had sent to the United States through the single medium of army facilities more than $200 million in excess of that which had been paid to this personnel in marks by the army. Consider also that this may have been one of the less important ways to get profits home. See Jack Bennet, "The German Currency Reform," *Ann. Amer. Acad. of Pol. and Soc. Sci.*, Vol. 267 (January, 1950), p. 44.

about when the Allied powers opened barter stores.[5] These stores quoted prices in barter units. Since cigarettes partially meet the qualifications of a commodity money, they came to be regarded to some extent as a standard of value and at times even served as a medium of exchange. It should be emphasized, however, that barter stores were not sufficient to instal cigarettes in general use. There were only a few of them and they were never very important because more advantageous bargains could usually be made on the black market.

A more decisive reason for the increased employment of cigarettes as money came in September, 1946. In their efforts to stop the black market trade and loss of exchange due to the activities of their own nationals, the British and Americans decided to make illegal the conversion of Reichsmarks into dollars or pounds.[6] They also attempted to prohibit almost all non-official financial transactions between Allies and Germans—a move that decided the extent to which cigarettes would play a monetary role until the currency reform, eighteen months later.[7]

As long as conversion of RM into dollars was allowed, there was a fairly direct conversion rate which enabled the Germans to compute how many RM equalled a dollar from the rate of exchange given by the army to the soldier. With the decision to suppress "free" conversion came the worst depreciation. The Allied soldier could no longer profit from his cigarette sales in terms of dollar or pound profits at home. He was not at all disposed to change his salary into RM at what he felt was a low rate of exchange. Because of this, he used his ration of cigarettes (he also had people at home send more to him) directly for purchases instead of selling them. He turned away from the use of RM as often as he could because of the ever increasing depreciation of that currency (due not only to the lack of convertibility but also to such other factors as low production, too much money in circulation, etc.). He made his purchases with cigarettes and still sent his whole dollar salary home, but the former dollar profits were now much more difficult to obtain.

Thus cigarettes were to some extent a medium of exchange and a measure of value between Allied soldiers and German nationals for

5. Barter stores had been established as early as 1943, when at least one was operating at Bremen. There is no record of the use of cigarettes as money substitutes in this case. On August 16, 1946, a barter shop allowing 95 barter units per carton of cigarettes was opened in Berlin.

6. *The Economist, op. cit.* The author estimates the British loss at 60 million pounds in all of Europe, probably a minimum guess.

7. It is interesting to note that the *New York Herald Tribune, European Edition,* correctly anticipates the new use of cigarettes as money in its edition of September 15, 1946. The increased growth of the black market also came at exactly this time. See Klopstock, "Monetary Reform in Western Germany," *Journal of Political Economy,* LVII (August, 1949), p. 278.

about a year and a half. The currency conversion of 1948 and the new economic outlook attendant upon it had the effect of eliminating, for all practical purposes, any other money than the new Deutsch Mark.

Superficial observation is perhaps the cause of the widespread misunderstanding concerning the use of cigaretes as money in the German economy. It is important to remedy this confusion, whatever has caused it, by explaining that cigarettes did not find a great employment as money *among Germans*. There is much evidence pointing to this conclusion. Most important of this evidence is the fact that during the whole period under discussion, from the fall of 1946 to the summer of 1948, certain basic necessities such as food, rent, clothing, and transportation were price controlled and in some cases rationed. Even though one could not quite live on the rationed commodities, this control gave to the RM an undoubted monetary value.

Furthermore it is well known that a large number of exchanges in Germany took place in the form of barter, either directly or by compensation.[8] It is difficult to know just how extensive this barter trade was. Estimates vary but the order of magnitude was from one-third to two-thirds of all business transactions.[9] It is even more difficult to know exactly how important cigarettes were in this trade. However, we shall indicate below, in our discussion concerning the tobacco *numeraire* and the nature of the market, further evidence to support the conclusion that cigarettes could not have played a significant role.

Because of the widespread practice of barter, one should not conclude that cigarettes were the accounting unit. Surprising as it seems on the surface, the legally fixed price, or something close to it, was most often the basis for this "compensation trade."[10] Tobacco was not a widely used *numeraire* in German business. In this German experience, one sees that money has many functions and that pressures forcing the abandonment of some of its advantages will not necessarily cause rejection in all of its uses.

The reasons for the different degrees of the employment of money in German markets as a measure of value and a medium of exchange are at once complex and interesting. Many years of rigid controls had accustomed the Germans to a high liquidity. A state of suppressed

8. F. Lutz in "The German Currency Reform and the Revival of the German Economy," *Economica*, XVI (May, 1949), p. 122, described this practice of compensation well. "Every firm has several specialists called 'compensators,' on its staff. If, for example, cardboard for packing was needed, the compensator might be obliged to barter the plant's own products for typewriters, the typewriters for shoes, and the shoes for cardboard."

9. Lutz, *ibid.*, states ". . . the German economy rapidly deteriorated into a barter economy. . . ." This is a bit exaggerated in my opinion. For a more realistic discussion, see H. Mendershausen, "Prices, Money and the Distribution of Goods in Postwar Germany," *American Economic Review*, XXXIX (June, 1949), pp. 646–72.

10. Mendershausen, *ibid.*, has a full discussion of this point, especially pp. 655–57.

inflation existed and they were quite used to the idea of being able to spend their money only on certain things. However, the moment signs of inflation began to appear old memories rushed to the front. The Germans' psychological outlook completely changed, and the idea of any liquidity was abhorrent. But where controls existed, only a certain amount of money could be employed. In the uncontrolled section of the economy, prices were very high.

The effect of this on the businessman was quite interesting. He might in some cases sell on the black market at high prices. For those who were able this perhaps would lead to large quick profits. But almost certainly it would also lead to termination of his business. This was in part because of public opinion, which strongly supported controls, and in part because of the possibility of legal action. More important, the businessman saw at once that even with a large mark income he could not buy materials with which to continue production. He soon learned that the only sure way to get materials and stay in business was to exchange commodities for commodities.

We might conclude this discussion by adding that there clearly were not enough cigarettes to fill a small portion of German currency needs even when the low level of the domestic economy is taken into account. For the cigarette to have displaced even a significant fraction of the estimated 100 billion RM of cash and non-blocked bank deposits would have required far more cigarettes at a higher price than could ever have been available. Even if this were not the case, the cigarette is not an ideal money-commodity. It lacks durability and does not have the essential property of concentrating high value in small volume—to mention two major objections. It is a convenient barter commodity for small-scale transactions and was never used for more than this. There is simply no evidence to indicate that tobacco ever played a significant role in the German economy.

One of the main reasons for this false idea of widespread cigarette use as money is that Allied soldiers and civilians in Germany indulged in black market practices to a surprising extent. As a result, they felt, quite mistakenly, that all Germans behaved as did those who bought or traded their cigarettes.[11]

In summary, one can say that while cigaretes did play a monetary role in Germany, it was minor one, taking place only for a short period of time and in a limited economic area, primarily that between Allied nationals and a relatively small number of Germans. What use they did have can be directly traced to Allied administrative decisions.

11. For a fictionalized but reasonably accurate account of life among the occupiers in postwar Germany, see Gay Boyle, *The Smoking Mountain* (New York: McGraw-Hill Book Company, Inc., 1951).

A NOTE ON THE CAUSES OF INSTABILITY IN THE MONEY SUPPLY

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ECONOMISTS HAVE REPEATEDLY pointed out that the supply of money is inherently unstable because its major component, bank demand deposits, is determined basically by the volume of banks' earning assets. It has been suggested that a stabilizing force has been introduced by the shift over the past twenty years in the character of earning assets. Now that banks hold large amounts of government securities the money supply should be less unstable than under conditions where loans constitute the bulk of earning assets.[1] Postwar experience lends some support to this view. Loans of commercial banks expanded greatly, but adjusted demand deposits show a much smaller growth in part because of offsetting changes in bank investments in government securities. However, other forces are also at work. The supply of bank-created money is not governed precisely by the movements of the combined total of loans and government securities held by commercial banks. This may be shown by use of a new set of statistical data provided by the Board of Governors of the Federal Reserve System. These data, in the form of a "Consolidated Condition Statement for Banks and the Monetary System," bring together all the factors operating to produce increases and decreases in the money supply.[2] Although monthly data are currently published in the *Federal Reserve Bulletin*, in this note quarterly data have been used because published monthly data extend back only to April, 1948.[3] The purpose of this

1. C. R. Whittlesey, "Memorandum on the Stability of Demand Deposits," *American Economic Review*, XXXIX, No. 6 (December, 1949), pp. 1192–1203. A somewhat similar view is expressed by A. G. Hart, particularly as to contraction in *Money, Debt, and Economic Activity* (New York: Prentice Hall, 1948), p. 508.

2. See, for example, *Federal Reserve Bulletin*, XXXVI, No. 8 (August, 1950), p. 1028. This material is explained in M. A. Copeland and D. H. Brill, "Banking Assets and the Money Supply Since 1929," *ibid.*, XXXIV, No. 1 (January, 1948), pp. 24–32. The essential step is consolidation of the accounts of banks and governmental agencies. A similar treatment is that of E. S. Shaw, *Money, Income, and Monetary Policy* (Chicago: Irwin, 1950), pp. 57–60. Shaw's series is on an annual basis. His consolidation is less comprehensive than the Reserve Board's as it excludes savings banks. Shaw (pp. 6–16 and pp. 31–45) explains in detail the principles of consolidating the various accounts.

3. Annual data extend back to 1929. In this note April, 1948, has been used as the end of the first quarter of 1948 because no March, 1948, figures have been published. Regular publication began in June, 1949.

note is to demonstrate the use of these new statistical materials by examining the part played by bank loans in causing deposit fluctuations. Loans appear to be only partly responsible for the rather wide swings in deposits which have taken place since World War II.[4]

As the title of the table in the *Federal Reserve Bulletin* suggests, the data are presented in balance sheet form. Although nothing more than a change of name is invoked in calling the asset items "factors an increase in which increases adjusted demand deposits" the way is then opened to interpreting changes in asset items between any two dates as one set of factors responsible for changes in adjusted demand deposits. Similarly all liability items other than adjusted demand deposits may be listed as "factors an increase in which decreases adjusted demand deposits." The Consolidated Statement then becomes a companion piece to the familiar Federal Reserve tabulation of factors affecting member bank reserves.[5] As arranged for the present purpose the data reveal the causes of changes in adjusted demand deposits.[6]

Although logically any element may be singled out as the resultant of all others, adjusted demand deposits have been selected as the resultant because that item best measures the banking system's monetary impact. One may, however, combine adjusted demand deposits, time deposits, and currency outside banks to obtain a resultant factor. Or again, adjusted demand deposits and currency outside banks may be treated as the residual element. To bring out sharply the effect of commercial banks' activities on the money supply, the accompanying table has been arranged to show quarterly and over-all changes in the factors governing adjusted demand deposits for the three and one-half year period ending June 30, 1950.

Even though over the whole period adjusted demand deposits in-

4. Short-run variability has increased significantly in comparison to prewar years. This appears to be traceable to increased variability in the volume of member bank reserves. That matter lies beyond the scope of this note. I have examined the behavior of member bank reserves in my paper, "The Monetary Mechanism Since the War," *Journal of Political Economy*, LVIII, No. 2 (April, 1950), pp. 124–41.

5. See *Banking and Monetary Statistics* (Washington: Board of Governors of the Federal Reserve System, 1943), pp. 360–67. From time to time the Reserve Board has used an analytical device similar to that suggested in this note. See, for example, *Federal Reserve Bulletin*, XXXVI, No. 7 (July, 1950), p. 776 and *Annual Report of the Board of Governors of the Federal Reserve System for 1949*, pp. 23–24. It is not possible to cast the consolidated balance sheet data in the form presented in the cited Reserve Board publications. The categories differ considerably although the basic method is the same. It should be noted that factors of change may be either positive or negative.

6. For a technical dscription of this series see *Banking and Monetary Statistics* (Washington: Board of Governors of the Federal Reserve System, 1943), pp. 11–12. There is general agreement that the adjusted demand deposit series is the best available measure of bank-generated money.

TABLE 1

Changes in Factors Causing Increases and Decreases in Adjusted Demand Deposits, Quarterly, December 31, 1946, to June 28, 1950*

(Billions of Dollars)

Year	1947				1948§				1949				1950		Total 12/1946–6/1950
Quarter	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)	(1)	(2)	
Factors an increase in which increases adjusted demand deposits															
Gold stock	0	0.8	0.7	0.8	0.4	0.3	0.4	0.3	0.1	0.2	0.1	−0.2	−0.2	0	3.7
Treasury currency outstanding	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Loans of commercial and savings banks	1.3	1.3	1.8	2.8	1.0	1.3	1.8	1.2	−0.2	−0.9	0.7	1.7	0.8	1.4	16.0
U.S. securities held by commercial and savings banks	....	....	....	....	−2.9	−1.5	−2.6	−0.1	−1.5	2.3	3.4	0.1	−1.0	0.2	−9.0
U.S. securities held by federal reserve banks	−2.2†	−3.0†	0.4†	−1.2†	−2.2	1.0	1.9	0	−1.5	−2.5	−1.4	1.0	−1.4	0.7	− 4.8
U.S. securities held by other monetary agencies‖	....	....	....	....	0	0	0	0	0	−0.1	0	−0.1	0	0	− 0.2
Other securities#	0.1	0.5	0.2	0.5	0.4	0	0.3	−0.1	0.1	0.4	0.7	0	0.7	0.3	4.1
Total Factors of Increase	−0.8	−0.4	3.1	2.9	−3.3	1.1	1.8	1.3	−3.0	−0.6	3.5	2.5	−1.1	2.6	9.8
Factors an increase in which decreases adjusted demand deposits															
Foreign deposits	−0.1	−0.1	−0.1	−0.1	−0.1	0.1	0.1	0.3	0	−0.2	0	0.3	0.1	0.2	0.6
Treasury cash	....	....	....	....	0	0	0	0	0	0	0	0	0	0	− 1.0
Treasury deposits in commercial banks and savings banks	1.1‡	−3.5‡	0.1‡	0.2‡	1.0	−0.3	0.6	−0.3	0.9	−1.1	1.4	−0.4	1.0	−0.5	0.7
Treasury deposits in Federal Reserve Banks	....	....	....	....	0.3	0.7	−0.2	−0.6	0.6	−1.3	0.8	−0.4	0.2	−0.1	0.5
Time deposits	0.8	0.9	0.2	0.5	0.5	0.5	−0.1	0.2	0.5	0.5	−0.1	0.2	0.7	0.4	5.7
Currency outside banks	−0.6	0.2	0	0.2	−1.1	0.2	0.1	0.4	−1.0	0.2	−0.4	0.5	−0.8	0	− 2.1
Capital and miscellaneous accounts	0.8	0.3	0.7	−0.8	0.5	−0.1	0.2	−0.2	0.4	0.4	0.5	−0.1	0.1	0.5	3.2
Total factors of decrease	2.0	−2.2	1.1	0	1.1	1.1	0.7	−0.2	1.4	−1.5	2.2	0.1	1.3	0.5	7.6
Statistical discrepancy	0.1	0	0	0	0	0	0.1	0.1	0	0.1	0.1	0	0	0	0.1
Adjusted demand deposits	−2.9	−1.8	2.0	2.9	−4.4	0	1.2	1.6	−4.4	0.8	1.2	2.6	−2.4	2.1	2.1

* Source: *Federal Reserve Bulletin*. Figures positive unless preceded by minus sign.

† Total for commercial, savings, Federal Reserve banks and other agencies.

‡ Total Treasury cash and balances at Federal Reserve and commercial banks.

§ Dividing date between first and second quarter is April 28, 1949, because of lack of published figures for end of March.

‖ Other monetary agencies are the Exchange Stabilization Fund and the Postal Savings System.

Securities other than United States government obligations.

creased by exactly the same amount as currency outside banks declined, inverse movements of this type are not observed on a quarterly basis. Rather, changes in the currency factor contributed along with other factors to producing wide swings in adjusted demand deposits. Within the period adjusted demand deposits decreased by as much as $4,400 million in a single quarter and rose by as much as $4,600 million over three successive quarters. The low figure for adjusted deposits was $80,400 million in March, 1947, and the high was $87,100 million in December, 1947.

Only in one instance was there no change in deposits from one quarter to the next. In only one other was the change less than $1,000 million. The general pattern reveals a decline in the first quarter of the order of $2,400 to $4,400 million, which is traceable in considerable part to an upswing in Treasury balances at Federal Reserve and commercial banks. One must not overlook, however, the reduction in Reserve and commercial bank holdings of United States government securities which has been a regular feature of the first quarter of each year. Loans show an increase during the first quarter of each year except in 1949, and then the decrease was small. The behavior of loans has clearly not been the cause of deposit contraction.

Each year the first quarter decrease in adjusted demand deposits has been offset by a rather steady expansion in the remaining quarters, except in 1948 when the year-end figure was below that of the previous year. The factors responsible for the expansion are complex. In the second and fourth quarters Treasury deposits typically declined, although the pattern is not perfectly uniform. Loans were expanding quarter by quarter for the entire three and one-half year period, except during the first and second quarters of 1949. However, only during two quarters, the third and fourth quarters of 1947, was there a close correspondence between loan and deposit growth. In five more of the fourteen quarters there is a rough correspondence. Clearly expansion of the money supply is not simply a function of the volume of bank loans. It is the net result of a large number of factors, of which loans are but one.

The period under review is too brief to permit the formulation of a universally valid statement as to the causes of monetary instability. Loans do not appear to be the dominant destabilizer. Bank holdings of government securities, while moving inversely to loans for the period as a whole, do not move in compensatory fashion on a quarterly basis. The growth of time deposits and capital accounts operated as a continuous check on the expansion of adjusted demand deposits, although only the former functions through absorbing reserves. Gold was a

continuously expansive factor until the final quarter of 1949, and laid the foundation for postwar monetary expansion. However, as the analysis is set up here there are fourteen separate factors operating, although three show no significant change.

When one takes into account that only a few of these many factors are subject to effective control by the monetary authorities it is remarkable that the money supply shows as much stability as it does. While loans represent a greatly diminished proportion of banks' total earning assets compared to predepression times, they are capable of varying through a wide absolute range. Their movement is accompanied by roughly inverse changes in government security holdings, but not by exactly compensatory changes.[7] Moreover, there are other factors than these which must be taken into account in explaining the cause of deposit variation. The means are now available for observing on a month-to-month basis the forces at work. It is hoped that this note will have the effect of directing the attention of investigators to the use of the new statistical tools provided by the Federal Reserve System.

7. Reference should be made to the retirement of United States government securities by the use of budgetary surpluses in this connection. As banks disgorged government securities in the process of expanding loans and holdings of other securities, the Treasury reduced the supply of government securities. Fiscal policy may therefore be credited with having restrained montary expansion somewhat entailing a sharp increase in money-rate levels.

AN ADDITIONAL NOTE ON CO-ORDINATION OF BANKING AND MONETARY AGENCIES*

CLARK WARBURTON
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PROFESSOR BACH'S COMMENTS[1] on my recent article[2] indicate that we are in general agreement on the basic issues which are involved in proposals for reorganization of the federal banking and monetary agencies. Unfortunately the character of his comments is such as to add confusion rather than clarification both to the issues involved and to the differences of detail which exist between his views and mine. I would like therefore to reply briefly to his comments on what he terms "three fundamental questions in monetary-fiscal-bank supervisory area."

1. Professor Bach's remarks on " 'independence' for the Federal Reserve" have virtually no relevance to anything in my article. My reference to the need for independence of monetary policy related to avoidance of its subservience to such considerations as the rate of interest on Treasury borrowings, and not to independence of the monetary policy makers from the executive branch of the government. In that article and also in articles published eleswhere, I have upheld as vigorously as Professor Bach the position that monetary policy is a matter of basic governmental policy and is a specific function of the federal government under the constitution of the United States. I have stated more explicitly than he has the view that guidance of central bank operations, since they are the primary instrument of monetary policy, should be the duty of a government officer of cabinet rank. My suggestions for reorganization of the federal banking and monetary agencies and for a revision of the statutory instructions to the Federal Reserve System are based more directly than are his own proposals on the principle he enunciates: "The Federal Reserve cannot be really independent of the President, the Treasury, and the Congress."

The differences between Professor Bach's viewpoint and mine

* The views expressed are personal only.

1. G. L. Bach, "A Further Note on Bank Supervision and Monetary Policy," *Journal of Finance* (December, 1950).

2. Clark Warburton, "Co-ordination of Monetary, Bank Supervisory, and Loan Agencies of the Federal Government," *Journal of Finance* (June, 1950).

which seem to emerge from his discussion are his implications: (1) that in times when large Treasury borrowing is necessary monetary policy must be subordinated to the views of the borrowing officer of the government with regard to the rate of interest he wishes to offer on government obligations; and (2) that in other times monetary policy must be "tied up with the interests of widespread voting groups." Professor Bach seems to be saying that the monetary policy of the government should be, or inevitably will be, dominated by the narrow-minded view of government economy which wants to keep down the interest on the public debt even when the consequence is inflation, with all of its notoriously unjust and terrible consequences, or by the interests of pressure groups which expect to gain by inflation or deflation. Professor Bach may not agree with this interpretation of his views, but I cannot interpret what he says in any other way. If this is his meaning, he is saying that the government of the United States can never achieve, and should not even try to achieve, a decent monetary policy. That attitude toward the making of monetary policy, as I emphasized in my article, will lead only to disaster. It represents a viewpoint in complete accord with the belief that a capitalistic country cannot provide economic stability because it will always alternate between depression and inflation. Under the present circumstances, adherence to that viewpoint amounts to giving aid and comfort to the enemy, since it is in agreement with the Communist conception of the inherent instability of capitalism.

2. In the following statement Professor Bach has expressed my own view: "If the central bank provides liquidity for the banking system, the task of deposit insurance is a relatively simple one vis-à-vis individual banks. Central bank failure in its major duty in a financial crisis would permit mass bank failures or place enormous drains on the deposit insurance fund if it attempted to prevent failures by absorbing assets; under such circumstances only United States Treasury intervention could probably prevent insolvency of the insurance fund." I presume that Professor Bach's adherence to this point of view rests on the same grounds as mine, namely, the experiences of 1921 and 1930–33, when central bank behavior exerted a powerful contractive pressure on bank reserves, leading to deflation and waves of bank failures.

However, this agreement between us on the fundamental importance of Federal Reserve policy has no significant bearing on the line of demarcation which I drew between the operational duties of the Federal Reserve System and those of the Federal Deposit Insurance Corporation. Further, Professor Bach's claim that my attention to

this division of duties is designed to maintain an "unrealistic separation between deposit insurance in the FDIC and monetary policy in the Federal Reserve," ignores the fact that I proposed that the operations of the two agencies be co-ordinated by placing them in the same department of the federal government.

3. With respect to the purpose of individual bank supervision, Professor Bach does not describe so well the basic principles underlying my point of view. However, I am sure that he agrees with me that individual banks may be badly run, even with the very best of central bank policies. The very nature of banks (their ability to create circulating medium and thereby acquire additional income-earning assets without parting with any other assets) provides a situation offering great temptations to individual banks to operate on too thin an equity and to engage in practices which ultimately lead to their downfall. A bank failure, whatever its origin, creates a serious disturbance in the circulating medium and the economic affairs of the community in which the bank is located. The task of bank supervision and the role of bank examinations, as distinct from central bank operations and monetary policy, is to prevent such disturbances. Professor Bach's suggestion that we should "face up more fundamentally and realistically to exactly what it is we are trying to accomplish through bank supervision" betrays, it seems to me, an ignorance of what bank supervisory agencies do and accomplish when their work is oriented to this task and is not interfered with by improper central bank policy.

PRELIMINARY ANNOUNCEMENT OF THE ANNUAL MEETING

THE ANNUAL MEETING of the American Finance Association will be held in Boston, Mass., December 26 to 29. Registration and general headquarters of the Association will be at the Hotel Statler. Rooms will be available at the Statler and nearby hotels. Members are urged to make reservations early by writing to the hotel of their choice.

Sessions are being planned by vice-presidents of the Association, as follows: Charles C. Abbott on developments in corporation finance; Wilford J. Eiteman on investment timing and security analysis; Roy L. Reierson on banking; William C. Greenough on pension funds; and Harold M. Groves on taxation and incentive. Other meetings are being arranged jointly with the American Economic Association and the American Statistical Association.

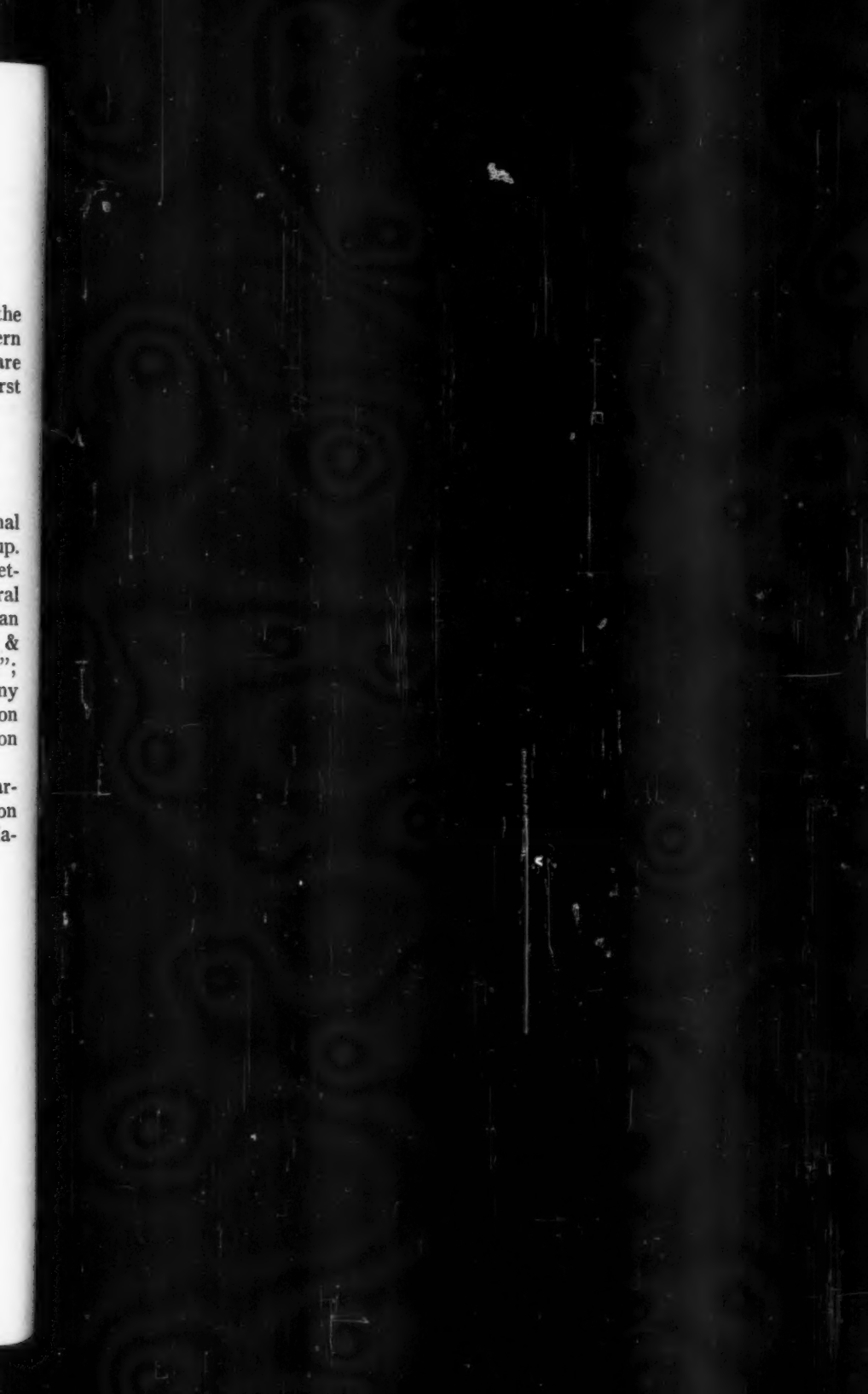
Douglas H. Bellemore of Boston University is chairman of the Local Arrangements Committee of the Association.

STUDENT CHAPTERS OF THE AMERICAN FINANCE CORPORATION

On May 19, 1951, the first charter for a student affiliate of the American Finance Association was granted to the Northwestern Graduate Finance Association. The thirteen charter members are graduate students in finance in the School of Commerce. The first officers are:

William H. Zuse, Jr., *President*
James R. Collins, *Vice-President*
Leesley B. Hardy, *Secretary-Treasurer*

Professor Harry G. Guthmann, former president of the national association, was designated as official representative to this group.

During the school year this group has held open seminar meetings at which Professor Roland I. Robinson spoke on "The Federal Reserve–Treasury Controversy over Interest Rates"; Mr. Norman Strunk, executive vice-president of the United States Savings & Loan League, on "Current Problems in the Savings and Loan Field"; Mr. John H. Wills, economist with the Northern Trust Company (Chicago), on "Interest Rates and Bond Yields"; and Dean Simeon E. Leland, a member of the United Nations commission to Chile, on "The Current Monetary Problem and the Chilean Experience."

The second charter for a student affiliate was granted to the Marquette University Chapter of the American Finance Association on May 28. Professor Francis Calkins was designated as the Association's official representative to this group.